

## Programme Specification

A Programme Specification provides a concise summary of the main features of a programme and its intended learning outcomes. It is intended to be used by prospective students, current students, academic staff and potential employers.

<b>Programme Title:</b>	
<b>BSc (Hons) Architectural Technology</b> <b>BSc (Hons) Architectural Technology with Foundation Year</b>	
<b>Programme (AOS) Code(s):</b>	<b>BA1ARC1, BA1ARC4</b>
<b>UCAS Code:</b>	<b>ARC1</b>
<b>Name of Final Award:</b>	<b>Bachelor of Science with Honours, BSc (Hons)</b>
<b>Level of Qualification:</b>	<b>Level 6</b>
<b>Regime of Delivery:</b>	<b>Attendance</b>
<b>Mode(s) of Delivery:</b>	<b>Full Time</b>
<b>Typical Length of Study (Years):</b>	<b>3 years</b> <b>4 years with Foundation Year</b>
<b>Professional Body Recognition / Accreditation (including specific requirements where applicable):</b>	

### Brief Description of the Programme

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 (The QAA subject benchmark statements for Architectural Technology, 2019). This course has been developed using three key themes: design, technology and management of building projects. You will learn skills of design, using both manual and digital methods, as well as emerging technologies used in the construction of buildings and structures. You will experience the studio practices that mirror the professional practices whilst working on the building design projects, You will study a variety of subjects to become proficient in construction technology, materials, legislation, sustainability and management.

This undergraduate course focuses on practical, in-demand skills so that you can make sure that buildings function as they are intended to. You will develop the valuable ability to plan and design buildings embracing social, technological, environmental, ethical and cultural perspectives, meeting the client's requirements and expectations. You will be introduced to design and detail of low to high-rise, residential to commercial complex buildings, ensuring that the solutions result in buildings and structures that are constructed economically and perform efficiently.

This course will prepare you to work as part of a project team administering procurement strategies and contract procedures and to interface with the construction team, providing support and co-ordination to turn the design into reality.

On completion of the course, you will know how to design and detail many kinds of buildings and communicate your designs effectively using the latest industry-standard software. You will learn to specify materials, components and assemblies to satisfy agreed briefs and standards in terms of time, cost and quality. Digital technologies are integral to the delivery of the curriculum, meeting the IT and digital standards required by the industry, both within the national and international context. You will develop vital skills that will enable you to effectively investigate building problems and present appropriate design solutions. In addition to subject knowledge, you will develop key interpersonal and transferable skills appropriate to a career in Architectural Technology.

## Programme Aims

- 1 To provide students with opportunities to develop theoretical and practical knowledge of architecture, integrating design with technology in the creation of new buildings or improving the existing stock of buildings in collaboration with other built environment disciplines.
- 2 To equip students with skills of selecting, defining, testing and implementing design solutions in the context of contemporary practice and procedures, and the application of statutory regulations and other essential controls for their development.
- 3 To enable students to become reflective practitioners adhering to 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.
- 4 To produce graduates with key transferable skills and behaviours, including creativity, problem-solving, self-reflection and self-management and digital capability in order to improve employability prospects and support their career and professional development.
- 5 To offer a contemporary curriculum engaged with social, technological, environmental, ethical and cultural perspectives developing Architectural Technologists meeting the industry requirements.

## Programme Learning Outcomes

The Bucks Graduate Attributes focus on the development of innovative leaders in professional and creative capacities, who are equipped to operate in the 21st Century labour market and make a positive impact as global citizens. The attributes are developed through the programme.

ID	Learning Outcome
On successful completion of the programme a graduate will be able to:	
<b>Graduate Attribute: Knowledge and its application (K)</b>	
K1	Explain relevant theoretical and practical knowledge of architectural science integrating technology with design acknowledging the requirement to work with multidisciplinary teams involved in the built environment, both within national and international contexts
K2	Identify, develop and assess client and user requirements considering resources, sustainability and environmental impacts and regulations to develop designs that reflect the client's objectives.
K3	Critically evaluate the factors affecting the design, construction and performance of buildings; and select materials, components, systems and technologies to generate design solutions and plan associated construction activities.

K4	Identify, control and mitigate hazards and risks and incorporate health and safety considerations into design at an early stage and ensure compliance with associated regulations.
K5	Demonstrate a comprehensive understanding of regulatory, legal, social, environmental and professional requirements in the field of architectural technology and the built environment.
<b>Graduate Attribute: Creativity (C)</b>	
C1	Challenge current practices and be open minded about how to improve and implement a new way of working in the field of Architectural technology.
C2	Devise creative and innovative responses to detailed designs using digital technologies including integrating, evaluating and recommending changes and control documentation associated with design.
C3	Assemble technical and performance requirements and methods for specifying materials and components including implementation of manufacturers' literature, design and technical guides, material certification.
C4	Exercise informed judgment to recommend appropriate procurement, contractual, legal and management procedures by critically reviewing their relative merits to meet the client requirements.
C5	Integrate research and scholarship skills in the structure of a strategy for discovery, learning and its dissemination.
<b>Graduate Attribute: Social and ethical awareness and responsibility (S)</b>	
S1	Operate within relevant codes of conduct of professional organisation(s) and demonstrate integrity, professionalism and ethical considerations in all activities.
S2	Critically assess sustainable design and technology solutions to meet client requirements and make recommendations to minimise environmental impact of project over building lifecycle
S3	Demonstrate the skills required of a built environment practitioner to manage stakeholder expectations and identify improvements, deliver value of the building projects using contemporary techniques such as value management, life cycle considerations and digital modelling.
S4	Manage and apply safe systems of work including taking responsibility for own obligations for health, safety and welfare issues, assessing and controlling risk.
S5	Promote appropriate skills, attitudes and behaviours in professional practice
<b>Graduate Attribute: Leadership and self-development (L)</b>	
L1	Evidence the importance of leading and managing teams and developing staff to meet changing technical and managerial needs to achieve common goals in delivering architectural technology projects.
L2	Exercise independent judgement, take responsibility for actions and decisions and operate within the constraints of own skills and knowledge as an Architectural Technologist.
L3	Manage personal workloads, meet deadlines, negotiate and pursue goals with others.
L4	Manage resources effectively to achieve project objectives in the design, construction and operation of buildings.
L5	Communicate information, argument and analysis effectively to technical and non-technical audiences.

## Programme Structure

Programmes are structured in stages. The number of stages will vary depending on the mode (e.g. full-time, part-time), duration and location of study which will be detailed in the Programme Handbook.

Modules are set at a specific academic level and listed as either core (compulsory) or optional. The level indicates the relative academic difficulty which will increase through the programme. Passing modules will reward you with academic credit. The amount of credits will depend on the complexity of the module and the level of effort required, which is measured in 'notional learning hours'.

Our [Academic Advice webpages](#) provide more information on the structure of taught awards offered by the University.

*Please note: Not all option modules will necessarily be offered in any one year. Other option modules may also be introduced at a later stage enabling the programme to respond to sector developments.*

### Foundation Level (Optional for students on degree programmes)

Code	Module Title	Credit	Core / Option	Compensable (Normally Yes)
FY026	Preparing for Success Knowledge and Creativity	N/A	C	Yes
FY027	Preparing for Success Self-development and Responsibility	N/A	C	Yes
FY028	Inquiry and Research Skills	N/A	C	Yes
FY039	Introduction to Architectural Design and Technology	N/A	C	Yes

### Level Four

Code	Module Title	Credit	Core / Option	Compensable (Normally Yes)
BC409	Introduction to Architectural Design Principles	15	C	Yes
BC410	Architectural Studio 1	15	C	Yes
BC401	Science and Materials	15	C	Yes
BC403	Principles of Construction Project Management	15	C	Yes
BC404	Building Design, Drawings and Measurement	15	C	Yes
BC405	Building Regulations and Legal Contexts	15	C	Yes
BC406	Building Construction Technology	15	C	Yes
BC408	Professional Skills in the Built Environment	15	C	Yes

### Level Five

Code	Module Title	Credit	Core / Option	Compensable (Normally Yes)
BC507	Architectural Studio 2	15	C	Yes

BC508	Digital Modelling and Specifications	30	C	Yes
BC509	Building Surveying	15	C	Yes
BC501	Advanced Construction Technology	15	C	Yes
BC504	Industrial Skills in Sustainability	15	C	Yes
BC505	Management Strategies, Economics and Finance	30	C	Yes

### Level Six

Code	Module Title	Credit	Core / Option	Compensable (Normally Yes)
BC606	Final Year Design Project	30	C	Yes
BC607	Sustainable Design and Technology Applications	30	C	Yes
BC601	Research Dissertation	30	C	No
BC603	Procurement and Contracts Management	15	C	Yes
BC605	Professional Practice	15	C	Yes

### Learning and Teaching Activities

Please see the [Academic Advice pages](#) for a description of learning and teaching activities that are recognised by the University. Detailed information on this specific programme is outlined below:

The course will use learning and teaching activities such as lectures, seminars, tutorials, demonstrations and project supervision. Virtual learning environment (VLE) will be used throughout the teaching of modules. Project briefs, lecture notes, and supporting information such as study skills guides are made available through the VLE and you will be encouraged to research information using directed activities. Students will be introduced to industry specific software and digital skills will be developed along with subject knowledge. Project and problem-based learning will be a key approach used for learning and teaching.

Industry practitioners will be involved in delivering guest lectures, site visits and contribute to the assessment of your work, where possible. In unforeseen circumstances when actual site/industry visits will not be possible, digital information such as photographs, drawings as well as opportunities for interaction with relevant industry practitioners will be provided. At all levels of the course, employability skills have been built into the programme to prepare learners to gain work experience and acquire skills to secure employment on graduating. These activities will include practitioner visits, CV preparation, mock interviews, and production of a personal portfolio.

Digital technologies and industry standard software will be used in relevant modules. An integrated 3D digital CAD model of a building, which embeds multiple facets of information such as specifications, programme, cost, environment, health and safety etc., will be used in the teaching of relevant modules. In year 2, you will be developing digital models themselves. This will foster deep learning enabling you to see how the contents delivered in different modules are interrelated to provide holistic concepts of design, construction technology, sustainability and integration of building services for the effective design and operation of buildings.

You are expected to take ownership of their learning and are required to spend time outside the contact time with tutors undertaking independent study. Independent guided study and self-learning increases from level 4 to 6, which requires high degrees of self-discipline and time management. By graduation, it is anticipated that you will be ready to face real world challenges and gain employment.

### **Lectures**

Lectures provide the framework for communicating theory, concepts, primary principles and industrial practices and procedures. Lectures are not deemed to focus on the one-way flow of information from lecturer to student but are used as a vehicle for two-way dialogue and for the embedment of short concept-focussed learning activities.

### **Tutorials**

Tutorials involve one-to-one meetings or small group supervision, feedback or detailed discussion on a particular topic or project. Tutorials can take place virtually as well face-to-face.

### **Seminars**

Seminars are small group sessions used to consolidate and extend learning of the materials covered in lectures. The sessions centre around structured learning activities designed to promote student engagement. A seminar may require a short presentation from a small group of students (peer-led) or a tutor-led session where theoretical concepts are described and explained, and example exercises as solved on a step-by-step basis. The nature of any presentation is dependent on the subject area but may for example be based on the small group findings in response to a learning activity with the finding being used for general dissemination or used for whole group discussion. The sessions may also provide a learning environment in their own right and will also be used for the provision of formative assessment and feedback.

### **Studio Practice**

Whilst you learn within CAD suites, workshops, libraries and lecture theatres across the campus, you will experience studio practice. Relevant learning and teaching activities for design projects will take place in the studio mirroring the industry practices and the studio practice will also provide peer learning opportunities. Industry professionals who provide live project briefs may visit the studio for reviews of work.

### **Case study Projects**

A series of case study projects, either written scenarios or live briefs from the industry will be used for the development of knowledge and skills of design and technologies for the buildings and structures. Projects are designed to present new challenges to students as they progress through the course and involve working with varied sites, clients and requirements. All projects commence with an introduction to a written brief, which guides students through the subsequent stages of research and analysis, design development and final presentation. You will record your work and keep a portfolio from the first year to final year.

### **Use of Digital Models including Computer Aided Design (CAD)**

Computer aided design is an essential skill for Architectural Technology students to acquire and apply to project work. You will learn AutoCAD, Revit, 3d Studio Max, Rhino and Photoshop through structured lessons in IT/CAD suites and studios.

### **Group Critiques**

The formal critique (crit) when you are required to display your work to a panel of tutors and your peers is considered central to your learning experience. The process encourages you to become increasingly articulate and confident when discussing their work and prepares you for client presentations when you enter practice. The crit is seen as an important forum not only for critical appraisal but also for debate and discussion among the panel, and as an opportunity for you to question the opinions of the tutors.

### **Personal Development Planning**

You are required to record your work across all three levels of the course as you progress through sequences of projects. 2D and 3D artefacts in different media are photographed and documented so that an ongoing digital portfolio is kept. Aspects of design practice such as site visits and collaborations with clients or colleagues on other courses are also documented. Personal Development Planning Portfolios encourage you to employ self-evaluation skills and critically reflect upon the learning outcomes for projects and the connections between studio and theory modules.

### **Workshops**

You will receive inductions so that they are able to use the extensive range of equipment on campus including timber, metal and ceramic workshops to make presentation pieces for projects. There are facilities for 3D printing and laser cutting, with workshop technicians providing support. These sessions also, may be used for the provision of formative assessment and feedback.

### **Study Visits and Tours**

The course team arranges visits to galleries, museums, construction project sites as well as visits to sites of historical and contemporary interest introducing you to the clients, contacts and project sites. There will be opportunities for international study visits organised across the School.

### **Practical Sessions**

Practical sessions are small group activities designed to promote the practical skills required by the module learning outcomes. Typically, these will involve structured learning activities with well-defined outcomes. For example, material descriptions in Science and Materials.

### **Laboratory Work**

Laboratory work is used to underpin theoretical concepts and supports the practical aspects of a module. The learning activities require the application of appropriate techniques, interpretation of data and the communication of results. The activities also aim to promote an enquiring learner approach to potential sources of error and Health and Safety implications. Laboratory sessions complement both lecture and small group teaching sessions and emphasise regulatory roles of various British Standard and Euro Codes.

## **Additional Course Costs**

There are costs associated with all studies, additional to the tuition fee, which require consideration, when planning and budgeting for expenditure. Costs are indicative and for the total length of the course shown unless otherwise stated and will increase with inflation; depending on the programme they may include equipment, printing, project materials, study trips, placement activities, DBS and/or other security checks.

**Essential costs:**

A pair of safety boots- £30

Study trips, essential stationary and printing- Up to £100-£150 per year.

**Optional costs:**

*Cost of printing dissertation* £50

*In year or end of year exhibitions and projects*– £100-£200 depending on the scale of the project

*Study Trips:* Optional study trips to Europe will cost £250-£400, and international trips could cost £600-£800 depending on location and duration.

*Graduation:* Graduation costs per student are estimated at £100 - £200 total. This is an optional cost for all students as attending graduation is not a requirement in order to have a degree conferred.

**Contact Hours**

1 unit of credit is the equivalent of 10 notional learning hours. Full time undergraduate students study 120 credits (1200 hours) and full-time postgraduate students study 180 credits (1800 hours) per year or 'stage' of the course.

Course Stage	Scheduled Activities (Hours)	Guided Independent Study (Hours)	Placement / Study Abroad / Work Based Learning (Hours)
Foundation Year	336	864	1200
Year One	349	851	1200
Year Two	360	840	1200
Year Three	305	895	1200

**Assessment Methods**

The [Assessment and Examination webpages](#) provide further information on how assignments are marked and moderated, including a description of assessment activities. These also include further information about how feedback on assessed work is provided to students, including our commitment to ensure this is provided to students within 15 working days (the 'three-week turnaround').

A variety of assessment vehicles are used as appropriate to each module. The forms of assessment have been chosen so as to motivate students to achieve and to create positive learning opportunities. The assessments are mainly coursework, which include:

- Written assignments carried out in the student's own time
- Report
- Portfolio
- In-class assignments
- Computer-based test
- Set exercises - worksheets, to be completed as required usually in the student's own time
- Presentations (for example, poster and oral)
- Laboratory exercises
- Proposal
- Dissertation

Assessment criteria reflect the progressively independent learning expected as the learners progress through the course. This supports the practical nature of the course, supported by theoretical research and critical writing.

Formative feedback on the learner's progress on the project work, directed study activities and assessments will be provided using verbal feedback during individual tutorials, group critiques or seminar sessions and peer feedback. Formative feedback opportunities will be provided to monitor and reflect on progress, identifying areas of achievement as well as focusing on objectives for future development.

## Classification

<b>Calculation of final award:</b>	<b>Level 5 - 33% / Level 6 – 67%</b>
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For full details of assessment regulations for all taught programmes please refer to our [Results webpages](#). These include the criteria for degree classification.

## Admissions Requirements

Please see the [Application webpages](#) for more information on how to apply, including a statement on how we support students from a variety of backgrounds. Please also see our [general entry requirements](#) for taught programmes. Applicants who do not meet our published entry requirements are encouraged to contact our admissions team for further advice and guidance.

## Typical applicant profile and any programme-specific entry requirements

A typical offer will require a UCAS Tariff score between 80-104 points. A minimum of two full A-levels (or equivalent) is required. Every application is considered on an individual basis. Applicants will need to complete an interview and demonstrate portfolio work. NC or NVQ in the appropriate subject areas at Level 3 will be considered. Mature applicants without the above qualifications will also be considered for entry by interview and APL process.

<b>Do applicants required a Disclosure and Barring Service (DBS) Check?</b>	<b>No</b>
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## Opportunities for students on successful completion of the programme

On completion of the course, students will be able to work in a variety of design roles such as Architectural Technologist, Building Information Modelling (BIM) Manager, CAD Manager, Building Control Officers and Construction Site Manager etc. within the construction, planning or property industries.

Graduates could go on to work for:

- architectural technology practices
- architecture firms
- local authorities
- government agencies
- housing associations
- construction organisations

## Recognition of Prior Learning

Previous study, professional and / or vocational experiences may be recognised as the equivalent learning experience and permit exemption from studying certain modules. Please refer to our [Credit Accumulation webpages](#) for further guidance.

## Student Support

During the course of their studies, students will be supported in the following ways:

- At the start of their studies all students will receive a full **induction** to the programme which will include introduction to the staff responsible for delivering the course, and access to library and IT facilities
- The **Programme Handbook** will outline the exact nature of the course and how it is structured, including the availability of option modules
- Each student will be allocated a **Personal Tutor** who will support their academic development, be able to advise and guide them with their studies and, where necessary, give advice on study options
- Students will be able to access our full range of **support services**, including the Learning Development Unit for skills and study support, the Library, the Careers and Employability Team, Student Finance Team, Accommodation and Counselling Services

## Programme specific support (if applicable)

N/A

## Appendices

### Quality Assurance

<b>Awarding Body:</b>	Buckinghamshire New University
<b>Language of Study:</b>	English
<b>QAA Subject Benchmark Statement(s):</b>	Architectural Technology (2019)
<b>Assessment Regulations:</b>	<i>Academic Assessment Regulations</i> , accessible via the Academic Advice webpages ( <a href="https://bucks.ac.uk/students/academicadvice">https://bucks.ac.uk/students/academicadvice</a> )
<b>Does the Fitness to Practise procedure apply to this programme?</b>	No
<b>Ethics Sub-committee</b>	Art and Design
<b>Date Published / Updated:</b>	December 2020
<b>Date programme re-approval required:</b>	2026

### Other awards available on programme (Exit Qualifications)

Please refer to the *Academic Qualifications Framework* for Exit Qualifications recognised by the University and credit and module requirements.

<b>Name of Exit Qualification:</b>	Ordinary Degree
<b>Full name of Qualification and Award Title:</b>	BSc in Architectural Technology
<b>Credits requirements:</b>	300 Credits
<b>Module requirements:</b>	<p>ALL 120 Credits at Level 4          ALL 120 Credits at Level 5 PLUS the following Level 6 modules: (excluding the Dissertation or equivalent)</p> <ul style="list-style-type: none"> <li>• BC606 Final Year Project</li> <li>• BC607 Sustainable Design and Technology Applications</li> </ul>
<b>Learning Outcome</b>	
Critically evaluate major factors affecting architectural design, construction technologies and performance of complex buildings and structures.	
Analyse the requirements of construction clients, produce specifications and devise solutions to well-defined, familiar and complex problems related to Architectural Technology.	
Apply practical and technical skills to produce innovative architectural digital models, drawings and other visual presentations.	
Devise creative and innovative solutions to integrate contemporary technologies into architecture and the wider built environment.	
Articulate a comprehensive awareness of the cultural and professional context and framework in which they wish to practice creatively, demonstrating how their practice is located within the built environment	

Communicate ideas effectively using written and visual formats in an organized, coherent and appropriate manner employing academic and professional conventions in Architectural Technology

Demonstrate awareness of regulatory, legal, social, environmental and professional frameworks that impact upon architectural technology and the built environment.

Evaluate and recognise own strengths, weaknesses and areas for improvement through reflection through collaborative and socially engaged working practices

Use research and investigative skills to identify and apply relevant information from a range of sources to solve complex problems

<b>Name of Exit Qualification:</b>	<b>Diploma of Higher Education (DipHE)</b>
<b>Full name of Qualification and Award Title:</b>	<b>DipHE in Architectural Technology</b>
<b>Credits requirements:</b>	<b>240 Credits</b>
<b>Module requirements:</b>	<b>ALL 120 Credits at Level 4 ALL 120 Credits at Level 5</b>

### Learning Outcome

Critically evaluate major factors affecting the architectural design, construction technologies and performance of complex buildings and structures to meet client requirements

Analyse the requirements of construction clients, produce specifications and devise solutions to well-defined, familiar and complex problems related to Architectural Technology.

Apply practical and technical skills to produce architectural digital models, drawings and other visual presentations.

Demonstrate comprehensive understanding of construction methods and emerging digital technologies to produce sustainable solutions applied to architecture and the wider built environment.

Articulate a comprehensive awareness of the cultural and professional context and framework in which they wish to practice creatively, demonstrating how their practice is located within the built environment

Communicate ideas effectively using written and visual formats in an organized, coherent and appropriate manner employing academic and professional conventions in Architectural Technology

Demonstrate understanding of the regulatory, legal, health and safety, social, environmental and professional frameworks that impact upon architectural technology and the built environment.

Evaluate and recognise own strengths, weaknesses and areas for improvement through reflection of own contribution and work of others in a multidisciplinary context

Critically utilise research and investigative skills to identify and apply relevant information from a range of sources to solve complex problems

<b>Name of Exit Qualification:</b>	<b>Certificate of Higher Education (CertHE)</b>
<b>Full name of Qualification and Award Title:</b>	<b>CertHE in Architectural Technology</b>
<b>Credits requirements:</b>	<b>120 Credits</b>
<b>Module requirements:</b>	<b>ALL 120 Credits at Level 4</b>
<b>Learning Outcome</b>	
Identify and discuss major factors affecting the architectural design, construction and performance of buildings.	
Analyse the requirements of construction projects including health and safety and sustainability and devise solutions to well-defined, familiar and sometimes complex problems.	
Apply a range of given architectural design methods and construction techniques.	
Apply practical and technical skills to produce small-scale architectural drawings and visual presentations.	
Display awareness of professional standards and expectations for working in teams.	
Communicate ideas effectively using written and visual formats in an organized, coherent and appropriate manner employing academic and professional conventions	
Evaluate and recognise own strengths, weaknesses and areas for improvement through reflection through collaborative and socially engaged working practices	
Demonstrate understanding of the methods of locating and applying relevant information from a range of sources to solve problems related to the built environment	