Programme Specification

Middlesex University London

1. Programme title	BSc (Hons) Architectural Technology
2. Awarding institution	Middlesex University
3a. Teaching institution	Middlesex University
3b. Language of study	English
4a. Valid intake dates	September
4b. Mode of study	FT/PT/TKSW for each intake
4.c. Delivery Method	On-campus/Blended learning
5. Professional/Statutory/Regulatory body	Professional body accreditation – CIAT The Chartered Institute of Architectural Technologists
6. Apprenticeship Standard	N/A
7. Final qualification(s) available	BSc Hons Architectural Technology/Dip HE Architectural Technology/Cert HE Architectural Technology
8. Year effective from	2022/2023

9. Criteria for admission to the programme		
Admission to the BSc (Hons) Architectural technology programme will require 112-120 UCAS tariff points from a flexible range of creative and technical subjects. This includes GCSE Grade 4/C in English and mathematics.		
A Levels		BBC-BBB including a C or above in a numerate subject
BTEC		DMM-DDM in a numerate or science subject
Access requirements		Overall pass: must include 45 credits at level 3, of which all 45 must be at Merit or higher
A combination of A-Level, BTEC and other accepted qualifications that total 112-120 UCAS Tariff points including 32 points from a numerate subject.		

In addition, Middlesex University general entry requirements apply as outlined in the university's regulation. Applicants whose first language is not English are required to achieve 6.0 in IELTS overall (with a minimum of 5.5 in each component) or an equivalent qualification recognised by Middlesex University. The equivalence of qualifications from outside UK will be determined according to NARIC guidelines.

We welcome applicants with a wide variety of educational experience including A/AS levels, BTEC National Diploma, International Baccalaureate and a large number of equivalent home and overseas qualifications. Application from mature applicants with suitable life skills and experiences are also welcomed.

Advanced entry to the programme will be considered on a case-by-case basis.

10. Aims of the programme

The programme aims to:

- Educate and nurture graduates with a broad knowledge to ensure they become conversant with the four core aspects of architectural technology (Design, Technology, Management, Practice) shaping around innovations in four main areas of technology:
    - Sustainable technology (reference to UN Sustainable Development Goals & Climate Framework)
    - Information and Digital Technology (reference to Building Information Modeling & Collaboration)
    - Building technology (reference to UK Building Regulations and Health & Safety)
    - Inclusive Technology (reference to EDI & social responsibility)
- Support students to develop the knowledge, skills, professional and ethical behaviour and attributes, appropriate for the role of Architectural Technologist within the wider inter-disciplinary team that will prepare them for the job market and professional practice.
- Stimulate students' interest in understanding the changing context of the profession, adapting to the needs, and addressing the current societal challenges related to the construction industry and the ultimate role of innovative technologies in creating a sustainable and inclusive built environment.
- Provide engaging learning environment and opportunities, such as practice-based/real-case that foster skills including creativity, critical thinking, communication, and collaboration.
- Develop an appreciation of the importance of research, scholarship, continuous professional development, and consultancy in the practice of architectural technology.

11. Programme outcomes*
(Based on QAA Subject Benchmark and CIAT accreditation mandatory threshold standards)

A. Knowledge and understanding	**Teaching/learning methods**
On completion of this programme the successful student will have knowledge and understanding of: 1. Architectural technology and its role in relation to wider context of industry and how technological theories and innovations influence architecture. 2. Science and engineering of buildings, materials and components related to design for production and performance, tectonics, design and technical guides and material certification 3. Principles of sustainability in built environment, evaluating environmental performance of existing and new buildings 4. Inclusive built environment, social well-being and ethical responsibilities that enable the diverse needs and requirements of all users and stakeholders to be recognised and included 5. Building services engineering, environmental science and structural engineering related to design and performance throughout building life cycle 6. Legal and regulatory frameworks for achieving inclusive, sustainable, and safe buildings using building regulations, health and safety requirements, quality assurance techniques and control systems 7. Business and organisation structures, market needs, cost, safety, reliability, appearance,	Students gain knowledge and understanding in all 4 strands of Design, Technology, Practice and Management. Central to the teaching and learning is the engagement with Industry to ensure the programme and curriculum remains current and relevant. The teaching and learning strategy is a dual approach of research-led and practice-led teaching appropriate to the subject. Blended-learning delivery methods will be utilised through active participation and engagement in a combination of methods such as: • Seminars/webinars • Design Studio • Workshops (Activity based and Making) • IT Labs • tutorials • project-based learning through real-case live projects such as MDX Living Pavilion • independent project work • Site visits • Fieldwork • Flipped learning Weekly studio sessions are shared across 3 cohorts, creating a community of learners providing ample opportunities for peer learning and interaction. **Assessment methods** Assessment is part of continual learning process rather than something added to the end of the modules. Students' knowledge and understanding is assessed by small and medium sized projects and coursework assignments.

appropriateness of design for purpose including accessibility and inclusive design	They include technical and statutory reports, essays, design and technical projects, creation of blogs and video content, portfolio or e-portfolio, poster pin ups, oral or recorded presentation, and physical/virtual models. Design Crit sessions with invited industry practitioners are used as formative and summative assessment. In order to prepare students for collaborative working environment, group projects also introduced and assessed through group report and presentation.
B. Skills On completion of this programme the successful student will be able to: 1. Analyse the context and political, economic, environmental, social and technological aspects that inform and influence the practice of Architectural Technology nationally and internationally 2. Evaluate and solve problems to realise the design into built form through the generation of detailed design solutions that respond to familiar and unfamiliar situations 3. Complete a sustainable and inclusive design project and conduct a research or systematic case study, informed by current topics and practices in the discipline including new and emerging digital and material technologies 4. Demonstrate an awareness of building elements, components, systems, and methods used for different building typologies 5. Develop an awareness of project and design management, project procurement and process, construction and contract	**Teaching/learning methods** Students learn skills through interaction with each other and with industry speakers. Studio sessions are the heart of the learning where different year groups share the space for their design activities. Moreover, student learn practical and analytical skills through hand on activities such as drawing and making physical and virtual models in workshop, studio and computer labs sessions. Weekly tutorials and interim submissions are integral to the teaching method. Central to the curriculum is addressing societal challenges in relation to Climate, EDI, Health & Safety and Ethical practice in industry. Curriculum is informed by research and practice frameworks such as UN SDGs, Climate Framework, Digital Built Britain, EDI and ethics. Practical skills curriculum further informed by government construction strategy and statutory regulations. Students will be trained and encouraged to participate in Digital Construction World Skills to increase their employment opportunities. **Assessment methods** Assessment is part of continual learning process rather than something added to the end of the modules. Students' skills are assessed by frequent, interactive assessments of students' progress during

management, knowledge and information management 6. Identify hazards and risks and develop and maintain safe systems of work and legal and relevant legislation and regulatory frameworks for ethical practice 7. Work independently and collaboratively as a member of a team, reflecting and identifying personal development needs and to plan to meet these needs through relevant and appropriate methods 8. Communicate solutions effectively and analytically through a variety of media such as in person presentation, report writing, hand-drawing, computer-aided design, three-dimensional Modeling, Virtual and Augmented Reality	the schedules weekly classes and tutorials will be used to identify learning needs of the students and adjust the assignment project accordingly. Interim and draft submissions are used as effective formative assessment with positive impact on student achievement and their summative assessment. Reflective writing as a means of self-assessment together with peer assessment methods are used to assess their team working and personal development.

12. Programme structure (levels, modules, credits and progression requirements)

12. 1 Overall structure of the programme

Below diagrams illustrate the programme structure in full-time and part-time modes. It must be noted that the thick sandwich year must be taken as full-time and cannot be taken part-time according to the University's regulations.

Programme Structure in Full-Time Mode

YEAR 1 (ALL YEAR)				
	PDE1810	Design Communication & Architectural Technology	(60 credit)	Cert HE
	PDE1811	Building Materials, Structures & Services	(30 credit)	
	PDE1812	Architectural Technology in Context	(15 credit)	
	PDE1813	Building Information Modeling	(15 credit)	

YEAR 2 (ALL YEAR)				
	PDE2810	Design Evaluation & Architectural Technology	(30 credit)	Dip HE
	PDE2811	Building Science, Energy & Environment	(30 credit)	
	PDE2812	Professional & Ethical Practice & Management	(30 credit)	
	PDE2813	Digital Construction & Collaboration	(30 credit)	

YEAR 3	PDE3250	Optional Industrial Placement Year	(120 credit)	

YEAR 3/4 (ALL YEAR)				
	PDE3810	Design Integration & Architectural Technology	(60 credit)	BSc (Hons)
	PDE3811	Sustainable & Inclusive Built Environment	(30 credit)	
	PDE3812	Research & Innovation in Practice	(30 credit)	

Programme Structure in Part-Time Mode

YEAR 1	PDE1810	Design Communication & Architectural Technology	(60 credit)	Cert HE

YEAR 2 (ALL YEAR)				
	PDE1811	Building Materials, Structures & Services	(30 credit)	Cert HE
	PDE1812	Architectural Technology in Context	(15 credit)	
	PDE1813	Building Information Modeling	(15 credit)	

YEAR 3				
	PDE2811	Building Science, Energy & Environment	(30 credit)	Dip HE
	PDE2812	Professional & Ethical Practice & Management	(30 credit)	

YEAR 4				
	PDE2810	Design Evaluation & Architectural Technology	(30 credit)	Dip HE
	PDE2813	Digital Construction & Collaboration	(30 credit)	

YEAR 5	PDE3250	Optional Industrial Placement Year	(120 credit)	

YEAR 5/6				
	PDE3811	Sustainable & Inclusive Built Environment	(30 credit)	BSc (Hons)
	PDE3812	Research & Innovation in Practice	(30 credit)	

YEAR 6/7	PDE3810	Design Integration & Architectural Technology	(60 credit)	

12.2 Levels and modules		
Level 4		
COMPULSORY	OPTIONAL	PROGRESSION REQUIREMENTS
Students must take all of the following: **PDE1810** (60 credit) Design Communication & Architectural Technology **PDE1811** (30 credit) Building Materials, Structures & Services **PDE1812** (15 credit) Architectural Technology in Context **PDE1813** (15 credit) Building Information Modeling	N/A	Students must pass all modules in order to progress to level 5 Students must pass all Level 4 modules to graduate with the named CertHE
Level 5		
COMPULSORY	OPTIONAL	PROGRESSION REQUIREMENTS
Students must take all of the following: **PDE2810** (30 credit) Design Evaluation & Architectural Technology **PDE2811** (30 credit) Building Science, Energy & Environment **PDE2812** (30 credit) Professional & Ethical Practice & Management **PDE2813** (30 credit) Digital Construction & Collaboration	N/A	Students must pass all modules in order to progress Students must pass all Level 4 & Level 5 modules to graduate with the named DipHE

Level 6		
COMPULSORY	OPTIONAL	PROGRESSION REQUIREMENTS
Students must take all of the following: **PDE3810** (60 credit) Design Integration & Architectural Technology **PDE3811** (30 credit) Sustainable & Inclusive Built Environment **PDE3812** (30 credit) Research and Innovation in Practice	**PDE3250** TKSW	For BSc (hons) award, the student must pass all compulsory level 4,5,6 modules.

12.3 Non-compensatable modules	
Module level	**Module code**
	Compensation is not permitted on any modules

13. Information about assessment regulations
University assessment regulations apply.

14. Placement opportunities, requirements and support (if applicable)
Students on the TKSW mode take a 12-month placement at the end of year 2. The University's MDXWorks guide students to find and secure placements. They also provide students with appropriate guidance and support in preparation for, during and after placement. The placement forms the basis for an assessed report based on the organisation. At the start of the placement students are allocated an individual supervisor who provides support and advice for the duration of the project. The students who complete a TKSW year will be awarded a Diploma in Employability Studies.

15. Future careers / progression
The programme will prepare students for both employment and post graduate studies. Digital innovations are driving significant change in construction industry mandated by UK Government. The programme is accredited by CIAT and there is high demand for architectural technologists in the job market. They can pursue careers in architectural technology, construction, BIM and sustainability. Alternatively, students can also set up their own business in architectural technology and related services.

The graduates can also proceed to an MSc to specialise in a related discipline for example new MSc programme: Building Information Modeling & Construction Technologies (validation in progress) which is due to start September 2022 subject to validation. Previous graduates landed employment in some of the high-profile companies such as Arup, BPR, BPTW, BRE and Emrys to name a few. Our students receive training and regularly enter competitions such as World Skills Digital Construction.

The programme content will be enriched by keeping industrial engagement and collaboration active and offering sponsored projects. This will help reveal current opportunities and future trends in their relevant employment sector.

16. Particular support for learning (if applicable)

Architectural Technology has a working relationship with University's Estate which allows students to use Campus buildings as platform for learning and research. Manifested in the creation and construction of MDX Living Pavilion - designed and developed from conception to delivery on campus by Architectural Technology students in collaboration with the University Estates team, their framework consultants, Barnet Council and other industry professionals. It facilitated opportunities for student to work with students of other courses such as Photography, Graphic Design, Product Design, Design Engineering, Interior Architecture and Interior Design to name a few. The project was short-listed and runner up for the Guardian University Award in the category of Teaching and Learning Excellence in 2020. Students continue to alter the structure in next phases with the help of University's academic, technical and professional team.

Weekly studio and workshop sessions are vertical across all cohorts facilitating immersive learning environment conducive to peer support and learning. Industry professional, Estates team and the course alumni regularly support students by giving seminars, providing feedback during Crit sessions and mentoring students.

Meeting the learning outcomes of this programme requires active participation achieved via regular weekly face-to-face or online tutorial contact with academic staff, productive and informed support from technical staff as well as use of online resource based learning materials and discussion tools.

17. JACS code (or other relevant coding system)	UCAS Code – W245 HECoS Code - 100121 (Architectural technology)
18. Relevant QAA subject benchmark(s)	Architectural Technology (2019)

19. Reference points

- QAA Subject Benchmark Statement for Architectural Technology (2019)
- QAA The Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (2014)
- CIAT Accreditation Guidelines for Honours Degree Level Programmes (2021)
- CIAT Guidance for Mapping QAA Subject Benchmark Statement for Architectural Technology (2019)
- UK Quality Code for Higher Education (Quality Code) (2018)

- UK Quality Code - Advice and Guidance: Assessment (2018) and External Expertise (2018)
- Middlesex University Regulations, Academic Policy Statement APS18: Curriculum Design Policy (2018),
- Middlesex University Regulatory Framework, Equality and Diversity Policy and Codes of Practice (HRPS8), specifically code of practice 7: Curriculum, and Pedagogy and Assessment
- Students, staff, external examiners, graduates and industry experts feedback and comments

20. Other information

Please note programme specifications provide a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve if s/he takes full advantage of the learning opportunities that are provided. More detailed information about the programme can be found in the rest of your programme handbook and the university regulations.

Curriculum map for BSc (Hons) *Architectural Technology*

This section shows the highest level at which programme outcomes are to be achieved by all graduates, and maps programme learning outcomes against the modules in which they are assessed.

Programme learning outcomes

	Knowledge and understanding
A1	Architectural technology and its role in relation to wider context of industry and how technological theories and innovations influence architecture
A2	Science and engineering of buildings, materials and components related to design for production and performance, tectonics, design and technical guides and material certification
A3	Principles of sustainability in built environment, evaluating environmental performance of existing and new buildings
A4	Inclusive built environment, social well-being and ethical responsibilities that enable the diverse needs and requirements of all users and stakeholders to be recognised and included
A5	Building services engineering, environmental science and structural engineering related to design and performance throughout building life cycle
A6	Legal and regulatory frameworks for achieving inclusive, sustainable, and safe buildings using building regulations, health and safety requirements, quality assurance techniques and control systems
A7	Business and organisation structures, market needs, cost, safety, reliability, appearance, appropriateness of design for purpose including accessibility and inclusive design
	Skills
B1	Analyse the context and political, economic, environmental, social and technological aspects that inform and influence the practice of Architectural Technology nationally and internationally
B2	Evaluate and solve problems to realise the design into built form through the generation of detailed design solutions that respond to familiar and unfamiliar situations
B3	Complete a sustainable and inclusive design project and conduct a research or systematic case study, informed by current topics and practices in the discipline including new and emerging digital and material technologies
B4	Demonstrate an awareness of building elements, components, systems, and methods used for different building typologies
B5	Develop an awareness of project and design management, project procurement and process, construction and contract management, knowledge and information management
B6	Identify hazards and risks and develop and maintain safe systems of work and legal and relevant legislation and regulatory frameworks for ethical practice
B7	Work independently and collaboratively as a member of a team, reflecting and identifying personal development needs and to plan to meet these needs through relevant and appropriate methods
B8	Communicate solutions effectively and analytically through a variety of media such as in person presentation, report writing, hand-drawing, computer-aided design, three-dimensional Modeling, Virtual and Augmented Reality

Programme outcomes														
A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	B5	B6	B7	B8
Highest level achieved by all graduates														
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

Module Title	Module Code by Level	A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	B5	B6	B7	B8
Design Communication & Architectural Technology	PDE1810	X				X	X		X	X	X	X			X	X
Building Materials, Structures & Services	PDE1811		X		X	X				X		X		X		
Architectural Technology in Context	PDE1812	X	X	X					X			X				
Building Information Modeling	PDE1813					X	X					X	X			X
Design Evaluation & Architectural Technology	PDE2810	X		X	X	X	X		X	X	X	X		X	X	X
Building Science, Energy & Environment	PDE2811		X	X	X	X				X		X			X	
Professional & Ethical Practice & Management	PDE2812	X			X		X	X				X	X	X		
Digital Construction & Collaboration	PDE2813	X				X	X					X				X
Design Integration & Architectural Technology	PDE3810	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sustainable & Inclusive Built Environment	PDE3811	X	X	X	X				X		X	X			X	
Research and Innovation in Practice	PDE3812	X	X	X	X	X			X	X	X	X	X		X	X

UN SDGs / Module	1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS
PDE1810	X	X			X				X	X	X	X	X		X		
PDE1811						X	X		X			X	X	X	X		
PDE1812	X	X		X					X			X	X		X		
PDE1813							X	X	X	X		X	X		X		
PDE2810	X	X	X		X			X		X	X	X	X	X		X	
PDE2811			X			X		X				X	X	X	X		
PDE2812	X			X	X		X	X		X		X	X		X	X	
PDE2813								X				X	X		X		X
PDE3810	X	X	X	X	X	X	X		X	X	X	X	X		X		X
PDE3811	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X
PDE3812			X		X	X	X		X		X	X	X	X	X	X	X

UN Sustainable Development Goals mapped to the programme modules: