# University of Huddersfield

# Programme Specification

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| 1 | Awarding institution/body | University of Huddersfield |
| **2** | **Teaching institution** | University of Huddersfield |
| **3** | **School and Department** | School of Arts and Humanities  Department of Design and Built Environment |
| **4** | **Course accredited by** |  |
| **5** | **Mode of delivery** | Full-time or sandwich |
| 6 | Final Award | BSc (Hons) |
| 7 | Course title | Architectural Technology |
| 8 | UCAS code |  |
| **9** | **Subject benchmark statement** | QAA Benchmark statement – Architectural Technology (2022) |
| 10 | Date of Programme Specification Approval | July 2023 |

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| **11** | Educational Aims of the Course This course will prepare students for the role of an Architectural Technologist within the modern construction industry with a focus on the construction technology and architectural detailing.  Students will be expected to operate within digital (BIM-enabled) work environments and to oversee the digital processes that lead towards technology-driven design solutions. The course has been designed to encourage a global approach to the built environment and for each student to develop a research-driven passion which culminates in the final year project module. Students will be directed to the three departmental research centres as part of this process. Graduates will be equipped with the ability to be flexible and be able to adapt to the ever-changing needs and demands of the modern construction industry.  Practical and industry-relevant projects will form the basis of the course which will be technology-rich to ensure that future graduates will not only be highly employable, but also equipped with a working knowledge of contemporary digital technologies. A profound understanding of materials, components and structural systems will be underpinned by the knowledge of comprehensive architectural detailing. It is also expected that technology-driven design will include the responsibility for the use of resources by adopting lean construction methods and addressing sustainability issues.  Leadership skills will be encouraged in order to deal with the complexities of collaborative projects along with an understanding of the regulatory environment and investment decisions. The technologist is expected to be a key member of the design team and part of the decision making process within the modern construction industry. The course will focus on generating graduates equipped to be the custodians of the digital technology. Graduates will be at the cutting edge of the modern construction environment and equipped with necessary skills to respond to anticipated changes within the construction industry.  The course aims to provide the student with knowledge and exposure in a wide range of approaches and techniques related to the role of the Architectural Technologist. This role includes understanding materials, components and structural systems within a context that includes construction contracts, procurement methods, costs and value within both design and construction. Knowledge of the regulatory requirements and appropriate compliance will be expected. Specialist knowledge with regard to building refurbishment, pathology and conservation provides a good opportunity for graduates to consider an alternative career working with historic buildings.  The course will encourage students to develop an understanding of the building regulations along with the ability to cost and manage projects using digital technologies. Students will be expected to develop a commitment to the role of architectural technology as a means of change with regard to sustainability and global awareness. To enable this, the students will engage in a collaborative project, where they will work with students from at least one other built environment discipline course to address a common practice based challenge.  The course curriculum reflects a balance between the core skills (such as detailing and construction techniques) and recent advancements in digital technologies. Ttho this end, the course content has been developed in accordance with the requirements of the Chartered Institute of Architectural Technologists (CIAT).  Accordingly, the course aims to ensure that, for the final award, the student achieves academic and professional standards as laid-out in the QAA Benchmark for Architectural Technology. The key areas of the course are:   1. To encourage technology-driven design as a basis for the responsible use of resources and methods within the global built environment. 2. To develop a range of specific skills with regard to technical, managerial, intellectual, personal and team-based activities associated with the role of the Architectural Technologist along with the generic skills transferable to a wider context. 3. To provide modules and projects, which can be integrated to stimulate and foster the theoretical and practical skills, professional awareness and expertise related to the modern construction industry. 4. To allow students to explore a wealth of new and emerging technologies capable of transforming the techniques, practices and processes of the relevant professions. 5. To create the foundation for, and make the students inquisitive about the subject matter and professional ethics to foster a culture of life-long and self-learning and value their continuous professional development. |

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| **12** | **Intended Learning Outcomes** |
| The course provides opportunities for students to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following areas: | |

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| ***Knowledge and Understanding Outcomes***  **Intellectual Abilities** |
| 1. Knowledge of the key concepts, theories and principles related to the Architectural Technology profession, including design concepts, information management (traditional and BIM based), building pathology, legal principles and regulatory requirements, construction contracts, construction technology, construction economics and procurement arrangements in the design and construction process. (F, I, H) 2. An awareness of the Architectural Technologists' context within the wider construction industry, including the legal, business, social, economic, health and safety, cultural, technological, physical, environmental, and global issues. (F, I) 3. Understand the links between and interdisciplinary relationships within the related disciplines operating in the built and natural environments within the global context. (I, H) 4. Systematic understanding of the digital technologies and BIM tools that support the realisation of building design and construction. (F, I, H) 5. Awareness of the evolution of the role of the Architectural Technologist, along with the contemporary issues/trends that currently face the profession with regard to ethical considerations, globalisation and sustainability. (I, H) |

| ***Ability Outcomes***  ***Professional / Practical Skills*** |
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| 1. Demonstrate a comprehensive range of skills related to Architectural Technology with the ability to describe, evaluate and apply a variety of working methods. (I,H) 2. Demonstrate the ability to critically and logically evaluate evidence and arguments and to apply that to the context of construction. (I,H) 3. Evidence the collating, inputting and analysis of appropriate research data. (F,I,H) 4. Effective use of appropriate tools in visual communication (including BIM-based tools). (F,I,H) 5. Demonstrate the ability to evaluate, implement and resolve design-related issues by exploring construction technology-driven solutions. (H) 6. Evidence the preparation of professional reports in accordance with published conventions and/or client expectations. (F,I,H) |

| ***Transferable / Key Skills*** |
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| The ability to |
| 1. Study independently, set goals, manage own workloads and meet deadlines. (F,I,H) 2. Devise solutions to routine and unfamiliar problems by collecting, analysing and interpreting data. (I,H) 3. Work effectively with others within the context of a multidisciplinary team. (I,H) 4. Identify personal strengths, weaknesses and needs. (F, I, H) 5. Articulate ideas and information comprehensibly in oral and written forms. (F,I,H) |
| 1. Present ideas and work to audiences in a range of situations. (F,I, H) |

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| **13** | **Course Structures and Requirements, Levels, Modules, Credits and Awards:** |
| The length of the course is either three years (full-time) or four years (full time with placement). Upon satisfactory conclusion of all modules (a total of 360 credit points), the student will be eligible for the award of:  BSc (Hons) Architectural Technology | |
| In general, the course is offered on a full-time basis leading to an exit qualification of a degree with honours, but those who have successfully accumulated the required number of credits may, if they wish, terminate their studies at intermediate exit points with the corresponding named awards (see Table 1).  **Progression**  *The main progression points on the course will be at the end of Year 1 (F) and 2 (I).*  **Year 1 (120 credits)** *All the modules are at foundation level.*  The first year of the course is designed mainly to familiarise the concepts and applicable theories of the construction industry to the students. Within this scope, the students will be introduced to the basic knowledge of the construction industry through a number of introductory modules.  TFA1011 Construction Business and Law (40 credits) provides an overall understanding about how the construction industry works and lays the foundation for student to not only recognise their role within the construction process~~,~~ but also to recognise and appreciate the work of other professionals within the industry.  TFA1016 Design and Construction Practice (40 credits) aims at introducing students to various practices in the design and construction of facilities in the Built Environment. It focuses on the practical application of materials, components and systems to small-scale structures and buildings. It also provides students with an opportunity to apply technology to the design process along with developing understanding of the importance of architectural detailing in conjunction with appropriate construction methods.  TFA1015 Building Technology and Digital Communication (40 credits) provides an introduction to the principles and practices of building technology, digital technologies, communication and representation in the context of architecture and construction.  **Year 2 (120 credits)** *All modules are at Intermediate level.*    In the second year of study, students will have the opportunity to apply the basic knowledge and understanding of construction industry from year one studies, and further develop their core competences required as an Architectural Technologist through a set of core modules and a collaborative project.  TIA1029 **Collaborative Project** **Built Environment** (40 credits) allows students to work with others from closely-related disciplines and practitioners from industry to take a multi-disciplinary approach on a project reflecting real life practice in the industry.  TIA1037 **Building Technology and Digital Detailing** (40 credits) aims to deepen students understanding of the latest innovation in building technology theories and applications in relation to the three parallel strands of Structures, Building Fabric Design and Environmental Design.  It also aims to develop advanced skills in digital modelling, detailing, analysis and simulation. It will enable students to have the competence to work in a BIM based digital environment for any design and construction project.  TIA1800 **Applied Architectural Technology 2** (40 credits) provides a specific opportunity for architectural technologists to apply technical design detailing (and other forms of embedded technology-based thinking) into the design process for new-build projects. The projects will introduce concepts surrounding law in the AT context, procurements strategies, costing projects and conditions of different forms of contracts.  **Optional Placement Year 3** **(120 credits)** Supported through placement preparation in Year 2, with opportunities advertised through the School’s Placement Unit most students elect to undertake this optional placement year.  The placement experience contributes considerably to the potential success of the student both in the final year of their studies and upon graduation, developing their professional practice, confidence and personal awareness. This placement year can consist of:   * A placement period of normally 48 weeks, with a minimum of 36 weeks, within a commercial setting. The Architecture and 3D Design department has a long track record of providing excellent paid placements in the construction industry; we have strong links with a variety of placement providers to suit a broad range of skills and potential career aspirations in the UK and abroad.   **Year 4 (120 credits)** *All modules are at Honours level.*  Year 4 of the course is centred around specialisms, whereby the students will not only be given the opportunity to learn more advanced concepts and specialised subjects within the course but also prepare them to work professionally within the construction industry.  THA1030 **Professional Practice** (20 credits) aims to consolidate the prior learning of students and to enhance their level of preparedness to meet the standards required for professional practice and career development within the construction industry. As a part of this intended preparedness, this module will also focus on professional ethics related to the surveying profession. As such, this module will partially address the expressed competency requirements of the professional so that future practitioners would have a fair understanding and awareness of business and commercial matters.  THA1032 **Major Project**. (40 credits) is a research module where the students will work independently (under the guidance of an assigned supervisor) on a related research topic. Having completed this module, the student will be able to identify and justify a research problem, complete a thorough literature review, understand, select and justify appropriate research methodologies, collect and analyse primary and / or secondary data using various techniques and to draw logical conclusions based on the results of an analysis.  THA1040 **Advanced Digital Detailing and Sustainability** (40 credits) aims to further develop students’ skills and knowledge of digital technology and ability to develop detailed design that comprehensively recognise the principles of sustainability in construction and the application of digital tools in design and construction.  THA1043 **Procurement and Contract Administration** (20 credits) examines the principal types of procurement systems and associated standard form of contracts used in the UK construction market and internationally. In addition, it explores the fundamental procedures related to construction contract administration using the commonly used standard form of contracts  All modules are Core modules apart from the Placement module which is Optional. | |

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|  | **TABLE 1: Credits and Awards: BSc (Hons) Architectural Technology** | | |
| **Year** | **Modules** | **Credits** | **Award** |
| 1 | TFA1011 Construction Business and Law  TFA1016 Design & Construction practice  TFA1015 Building Technology and Digital Communication | 40 (Yearlong)  40  (Yearlong)  40  (Yearlong) | **120 credits: Certificate of Higher Education** in Architectural Technology |
| 2 | TIA1029 Collaborative Project  TIA1800 Applied Architectural Technology 2  TIA1037 Building technology and digital detailing | 40 (Yearlong)  40  (Yearlong)  40  (Yearlong) | **240 credits: Diploma of Higher Education** in Architectural Technology |
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| 3 | TST1525 School of Arts and Humanities Placement | 120S | **240 + 120 ‘S’ credits**  **Sandwich Award**  **Diploma of Higher Education** in Architectural Technology |
| 4 | THA1030 Professional Practice  THA1032 Major Project  THA1040 Advanced Digital  Detailing and Sustainability  THA1043 Procurement and Contract Adminstration | 20 (T2)  40 (Yearlong)  40  (Yearlong)  20 (T1) | **300 credits: Bachelor Degree**  BSc Architectural Technology  **360 credits: Honours Degree**  BSc (Hons) Architectural Technology  **480 credits: Honours Degree Sandwich Award**  BSc (Hons) Architectural Technology |

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| The mode of study is full time commencing September with the Main Course Assessment Board taking place in June. For students taking a Sandwich year, marks will go to a Course Assessment Board after the opportunity for a minimum of a 36-week placement has been concluded.  Assessment regulations are as detailed in the University of Huddersfield Handbook of Regulations for Awards and Student Handbook of Regulations.  In a course leading to the award of a degree with honours, classification will be in accordance with the University’s Regulations. |

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| **14** | **Teaching, Learning and Assessment** |
| With the aim of providing the best possible teaching and learning experience to the students, this course is designed to create a vibrant teaching and research environment, supported by a staff team diverse in their experience and research interests. While developing the core skills and the knowledge required of an Architectural Technologist, students will explore innovative working practices through the use of digital technologies and other contemporary tools and processes. The ethos of the teaching and learning within this course is centered on the interrelationship between the theory, practice and the process. Theoretical aspects of technology-driven design practices are covered mainly during the taught classes and discussions whereas, the students are given the opportunity put the learnt theories into practice during the tutorial sessions and collaborative projects supported by guest-lectures from practitioners. In addition, all the students are actively encouraged to complete the sandwich placement year (3rd year) where they would get the opportunity to observe and participate in real-world work practices. The interdisciplinary nature of the construction industry is mimicked within the learning environment (especially through the shared modules and the collaborative project) and the students will be encouraged to understand and appreciate the roles and contributions of other professionals within the construction industry.  Diverse teaching and learning approaches are adopted throughout the years in group and collaborative works for students aiming to make networking opportunities and learning from peer interaction possible. Also, the programme incorporates live projects where appropriate.  The assessment process is considered a vital aspect of the learning development for both students and staff. Both formative and summative assessment is integrated in all modules across the years. A range of approaches to assessment are utilized on the course which are adjusted according to the context of the work and employed at points considered most beneficial to the student. During Year 1 of the course, all the modules are assessed based on two pieces of coursework in each module (details in module specifications), where the students are tested for the depth and breadth of their understanding. At the same time, this also encourages self-directed learning, potentially helpful for the students who are going through their transition from prescriptive school-style methods to more independent learning. Second- and third-year assessments are a mixture of coursework-based assessments and examinations, students are not only tested for their in-depth subject knowledge but also for their ability to relate and apply their newly gained knowledge to various scenarios. In addition to these two key methods, group assessments, peer assessments, individual and group presentations, exhibition style visual aids and portfolios are used in some of the modules as other modes of assessment.  Providing appropriate feedback on student work is considered in great detail within the course design. For each assignment the students will receive generic feedback and an opportunity for further clarification within tutorials and/or class-room discussion. For examinations, after releasing the results, the tutor will provide a verbal general feedback to the class, and organize a drop-in session allowing students to provide additional feedback if necessary. | |
| Furthermore, this programme is aligned with our Innovative Design Lab (IDL), providing students with a unique opportunity to engage in activities and events led by a community of research active staff within the School. Researchers will provide valuable input into the modules on the programme. IDL incorporates research within the areas of Lean Construction and BIM. The development of research impacts on the content delivery and expertise on the programme, bringing research-led and practice-led activities together to reflect the aims and ambitions of the School of Arts and Humanities. | |

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| **15** | **Support for Students and their Learning** |
| The University of Huddersfield provides a range of central facilities to support students and course tutors refer students as appropriate. The main facilities are as follows: | |
| * Learning Centre (library and computing facilities) provides induction and ongoing support for all students * A distributed network of learning support units that are open to all students * Student Services provides specialist advice in the areas of careers, pastoral care, local child care facilities, counselling, welfare and immigration, and disability and runs the University Faith Centre Where appropriate these services are extended to distance learning students * International Office provides help and support for all overseas students. | |
| **Course Level Support** | |
| * Induction packs sent to students prior to arrival at University followed by an induction programme for orientation and introducing study skills at the beginning of term * Student handbook and on-line module guides * Site visits (optional) * Guest lecture * Specialist PCs & specialised software facilities * Virtual learning environment * Personal academic tutor system | |
| * Peer mentorship schemes such as PAL (peer assisted learning) are used to offer friendly, impartial advice and assistance, by students, for students, answering the questions that are not always posed to the academics * Academic Skills Tutor. | |
| **Personal Development Planning**  Personal development planning is inherent in all modules. The first year module TFA1011 ‘Construction Business’ will introduce the concept of PDP to the students and they will have opportunities to plan their development in subsequent years. This will enhance their learning and address issues in line with University policy on PDP and encourage independent active learning**.** The student records their reflectivethinkingrelevant to their own practice and the context in which it is situated at all levels of study in their formative and summative assignments. The Year Two module TIA1028 ‘Collaborative Project’ will provide the opportunity for the students to further develop their individual PDP in a collaborative environment and team role identification. Preparation for placement and career opportunities is delivered through modules at intermediate and honours level respectively. Professional practice assignments in the THA1030 module in the final year, prepares the student to be confident and to promote themselves and their work in a professional and ethical manner within their selected route and will encourage relationships with related professional bodies such as CIAT, with a view to obtaining recognised membership. PDP activities will be facilitated through e-Learning mechanisms in place at the University (VLE).  Equal Opportunities  In admitting students, and in teaching and assessing them, the course operates in conformity with the University and School of Arts and Humanities’ policies on equal opportunities.  Special Educational Needs and Disabilities Act  In admitting students, and in teaching and assessing them, the course operates in conformity with Precept 8 of the QAA Code of Practice for Disabled Students in line with the Equality Act (2010) and the Disability Discrimination Act (DDA) 2005. The QAA Code of Practice (2010) and the Quality Act (2010) may be accessed through the following web page:  <http://www.legislation.gov.uk/ukpga/2010/15/pdfs/ukpga_20100015_en.pdf>. | |

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| 16 | Criteria for Admission |
| Candidates must be able to satisfy the general admissions requirements of the University of Huddersfield and the specific requirements of the course as follows:  Entry requirements for this course are normally one of the following:   * BBB at A Level or equivalent * DDM in BTEC Level 3 Extended Diploma * 104-112 UCAS tariff points from a combination of Level 3 qualifications * Pass Access to Higher Education Diploma with 45 Level 3 credits at Merit or above. * Pass International Baccalaureate with an overall score of 31 points. * Candidates for whom English is not the first language are required to have International English Language Testing System (IELTS) at a score of 6.0 overall and no less than 5.5 in any component (academic or general test).   Other suitable experience or qualifications will be considered. For further information please see the University's minimum entry requirements at <http://www.hud.ac.uk/undergraduate/howtoapply/entryrequirements/> | |
| A student seeking credit for advanced standing on the course under Section D3 of the University’s Regulations for Awards may claim accreditation for prior learning (APL) or for prior experiential learning (APEL) which is equivalent to that arising from relevant modules of study. The School Accreditation and Validation Panel (SAVP) will look at each applicant individually to assess whether the applicant has acquired the necessary skills and knowledge deemed appropriate to be granted credit where applicable on the course.  **Mature and Overseas Students (considered on an individual basis)**  Mature students with no or few formal qualifications will be considered for admission, but will be expected to show their aptitude and suitability for the course.  Applicants from non English speaking countries will be required to demonstrate that they have a suitable level of English, which would normally be a qualification such as IELTS at grade 6 or above, or equivalent and at least 5.5 in each component.  **Additional Course Requirements**  N/A | |

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| **17** | **Methods for Evaluating and Improving the Quality and Standards of Teaching and Learning** |
| * The University’s Teaching and Learning Committee has the ultimate responsibility for quality and standards of teaching and learning in the University; | |
| * Validation takes place under the University regulations and Quality Assurance Procedures for taught courses. | |
| * Periodic subject area reviews take place on a rolling quinquennial programme and focus inter alia on the arrangements for quality assurance management and enhancement, assessment and teaching and learning opportunities, C & IT strategies, the articulation and assurance of standards, external examiner reports and evaluation, links with professional bodies, employers and other external organisations; | |
| * University ensures that arrangements for approval, validation and quality assurance of collaborative provision are of the same level as those expected for campus-based courses; | |
| * University strongly encourages student representation on all major committees within the University; | |
| * Staff development priorities in the University are based on achieving excellence in learning, teaching and scholarship; | |
| * Annual Evaluation of Courses is the responsibility of the School Board. The Course Committee prepares an annual evaluation report that includes information under the following headings: * Outstanding issues from the previous year * Student achievement * Standards * Student learning opportunities/experience * Teaching and curriculum development * Student applications/enrolment * Management and resources * Summary of actions required | |
| * Reports are considered by the Annual Evaluation Committee, which includes a nominated representative of the University’s Teaching and Learning Committee. The School Board considers the minutes and identifies any actions required at School level. The School Board reports to the University’s Teaching and Learning Committee that, in turn, identifies any actions required at University level. | |
| * Amendments to course and module documents are considered by the School Accreditation and Validation Panel. | |
| * A Course Evaluation Questionnaire is distributed annually to students and the results considered by Course Committee | |
| * School Teaching & Learning Committee oversees the development of teaching and learning in the school and offers small grants to staff to support research and innovation in teaching and learning | |
| * The Student Panel meets twice a year and matters of concern are reported to the Course Committee. | |
| * Each module is evaluated on an annual basis and a short report considered by the Course Committee | |
| * Students are represented on Student Panel and on Course Committees and School Board committees. | |

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| **18** | **Regulation of Assessment** |
| * Assessment regulations are as detailed in the University of Huddersfield Handbook of Regulations for Awards and Student Handbook of Regulations. * <http://www.hud.ac.uk/registry/regulationsandpolicies/awards/> * An overview of assessment details are provided in the Student Handbook and a full assessment brief provided within Module Guides. | |

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| Role of External Examiners  * In relation to courses the role and responsibilities of External Examiners is to advise the Course Assessment Board with regard to standards and fairness of assessment and, when appropriate, to consider the results of individual students in the context of the University’s current regulations. |

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| **19** | **Indicators of Quality and Standards** |
| This course is to be validated by the University of Huddersfield. | |
| Professional Body reviews: The continued accreditation of the Chartered Institute of Architectural Technologists (CIAT) will be sought for this course. Visits from CIAT will happen every five years and the Chartered Association of Building Engineers (CABE) will continue to have an affiliation with the University. | |

Please note: This specification provides a concise summary of the main features of the Course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided.

More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module can be found in the study module guide and course handbook. The accuracy of the information contained in this document is reviewed by the University and may be checked by the Quality Assurance Agency for Higher Education.

Key sources of information about the course can be found in: <http://www.hud.ac.uk/>

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| **Learning outcome mapping**  **Architectural Technology** | F | F | F | I | I | I | H | H | H | H |
| **TFA1011 Construction Business and Law** | **TFA1016Design & Construction practice** | **TFA1015 Building Technology and Digital Communication** | **TIA1029 Collaborative Project** | **TIA1800 Applied architectural Tech 2** | **TIA1037 Building technology and digital detailing** | **THA1040 Advanced digital detailing & sustainability** | **THA1030 Professional Practice** | **THA1043 Procurement & contract Admin** | **THA1032 Major Project** |
| **KNOWLEDGE AND UNDERSTANDING OUTCOMES** |  |  |  |  |  |  |  |  |  |  |
| A1 Knowledge of the key concepts, theories and principles related to the Architectural Technology profession, including design concepts, information management (traditional and BIM based); building pathology; legal principles and regulatory requirements, construction contracts, construction technology, construction economics, and procurement arrangements in construction and design process (F, I, H) | • |  | • |  | • |  | • | • | • | • |
| A2 An awareness of the context within the wider construction industry, including the legal, business, social, economic; health and safety, cultural; technological, physical, environmental, and global issues (F, I) | • | • |  | • | • |  |  |  |  | • |
| A3 Understand the links between and interdisciplinary relationships within the related disciplines operating in the built and natural environments within the global context (I, H) |  |  |  |  |  | • | • | • |  | • |
| A4 Systematic understanding of the digital technologies and BIM tools that support the realisation of building design and construction (F, I, H) |  |  |  |  | • | • | • |  |  | • |
| A5 Awareness of the evolution of the role of the Architectural Technologist, along with the contemporary issues/trends that currently face the profession with regard to ethical considerations, globalisation and sustainability (I, H) |  |  |  |  | • | • | • | • |  |  |
| **PROFESSIONAL / PRACTICAL SKILLS** |  |  |  |  |  |  |  |  |  |  |
| B1 Demonstrate a comprehensive range of skills related to Architectural Technology with the ability to describe, evaluate and apply a variety of working methods(I,H) |  |  |  |  | • | • | • | • |  | • |
| B2 Demonstrate the ability to critically and logically evaluate evidence and arguments and to apply that to the context of construction (I,H). |  |  |  | • | • |  |  | • | • |  |
| Evidence the collating, inputting and analysis of appropriate research data. (F,I,H) |  |  | • | • |  |  |  | • | • | • |
| B3 Effective use of appropriate tools in visual communication (including BIM-based tools)(F,I,H) |  |  | • |  |  | • | • |  |  | • |
| B4 Demonstrate the ability to evaluate, implement and resolve design-related issues by exploring technology-driven solutions(H) |  |  | • |  |  |  | • |  |  | • |
| B5 Evidence the preparation of professional reports in accordance with published conventions and/or client expectations (F,I,H) |  |  |  |  |  |  |  | • | • | • |
| **TRANSFERABLE KEY SKILLS** |  |  |  |  |  |  |  |  |  |  |
| C1 Study independently, set goals, manage own workloads and meet deadlines. (F,I,H) |  | • | • | • | • | • | • | • |  | • |
| C2 Devise solutions to routine and unfamiliar problems by collecting, analysing and interpreting data. (I,H) |  |  |  | • | • | • |  | • |  | • |
| C3 Work effectively with others within the context of a multidisciplinary team. (I,H) |  |  |  | • |  | • | • | • |  | • |
| C4 Identify personal strengths, weaknesses, and needs. (F, I, H) |  | • |  | • | • | • | • | • |  | • |
| C5 Articulate ideas and information comprehensibly in oral and written forms. (F,I,H) | • | • | • | • | • | • | • | • | • | • |
| C6 Present ideas and work to audiences in a range of situations. (F,I, H) |  |  | • | • |  | • | • | • |  | • |

**Mapping QAA Subject Benchmark Statement for Architectural Technology 2022**

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| **Mandatory Threshold Standards**  holders of a bachelor's degree with honours in Architectural Technology demonstrate knowledge, understanding, application, analysis, evaluation, and creativity to differing extents, relative to: | **LEVEL 4 (F)** | **LEVEL 5 (I)** | **LEVEL 6 (H)** |
| 1. context, which includes the social, technological, environmental, economic, political, legal and ethical factors that inform and influence the discipline and practice of architectural technology at local, regional and global levels. | TFA1011 Construction Business and Law  TFA1016 Design & Construction practice | TIA1029 Collaborative Project  TIA1037 Building technology and digital detailing | THA1030 Professional Practice  THA1032 Major Project |
| 1. professional behaviours, conduct and ethics, architectural practice, design leadership and management functions (for example, principal/lead designer, design management, information management), procurement methods and contract administration | TFA1011 Construction Business and Law  TFA1016 Design & Construction practice | TIA1029 Collaborative Project  TIA1037 Building technology and digital detailing | THA1030 Professional Practice  THA1043 Procurement & contract Admin  THA1032 Major Project (Dissertation) |
| 1. technologies and interrelation of building elements, systems, components, materials and methods used in the construction and adaptation of different building typologies, and how these contribute to the functions of buildings | TFA1016 Design & Construction practice  TFA1015 Building Technology and Digital Communication | TIA1800 Applied architectural Tech 2  TIA1037 Building technology and digital detailing | THA1040 Advanced digital detailing & sustainability |
| 1. architectural and technological design principles, science (that is, fundamentals of building physics and pathology) and values that drive approaches taken in works to new and existing buildings (for example, conservation, maintenance, renovation and adaptation) | TFA1015 Building Technology and Digital Communication | TIA1029 Collaborative Project  TIA1037 Building technology and digital detailing | THA1040 Advanced digital detailing & sustainability |
| 1. designing holistically, including the ability to detail the design from first principles, for production, performance, sustainability and better environmental performance and in response to regulatory requirements, health and safety, wellbeing and advances in sustainable technologies | TFA1011 Construction Business and Law  TFA1015 Building Technology and Digital Communication | TIA1029 Collaborative Project  TIA1037 Building technology and digital detailing | THA1040 Advanced digital detailing & sustainability  THA1030 Professional Practice |
| 1. client, user and stakeholder needs, analysing and interpreting the nature of a development, and evaluating context to determine the responsive scope of a project | TFA1011 Construction Business and Law  TFA1016 Design & Construction practice | TIA1029 Collaborative Project | THA1030 Professional Practice  THA1043 Procurement & contract Admin |
| 1. health and safety requirements within a regulatory system, identifying, analysing, and evaluating hazards and risks when generating solutions to ensure health, safety, welfare and security during the life cycles of buildings, including compliance and enforcement | TFA1011 Construction Business and Law | TIA1029 Collaborative Project | THA1030 Professional Practice |
| 1. creating resilient, sustainable and inclusive design solutions as whole systems and in detail in response to varied situations, which are informed by current understandings within the discipline and wider context, including climate change | TFA1015 Building Technology and Digital Communication | TIA1029 Collaborative Project  TIA1037 Building technology and digital detailing | THA1040 Advanced digital detailing & sustainability |
| 1. current philosophies, processes and technologies for the modelling, communication, and management of information and to apply them in a collaborative working environment to support data-driven decision-making | TFA1015 Building Technology and Digital Communication | TIA1029 Collaborative Project  TIA1037 Building technology and digital detailing | THA1040 Advanced digital detailing & sustainability |
| 1. current and emerging topics, technologies and practices (including regulations and standards) that inform the architectural technology discipline through self-reflection, identification of personal development needs, and action planning to maintain awareness and currency, and to accommodate specialisation in light of new and emerging professional environments. | TFA1011 Construction Business and Law  TFA1016 Design & Construction practice | TIA1029 Collaborative Project  TIA1037 Building technology and digital detailing | THA1040 Advanced digital detailing & sustainability  THA1030 Professional Practice |

**Main Modules that deliver PDP Content**

TIA1029 Collaborative Project Built Environment

**Monitoring and update**

THA1030 Professional Practice

**Final review**

TFA1011 Construction Business and Law

**Planning**

Being an industry-oriented course, Personal Development Planning (PDP) is an integral part of the B.Sc. Architectural Technology course. The students are not only expected to learn the theoretical aspects of the pathway, they are also expected to develop their skills set to prepare for the industry practice orientation. Identifying individual strengths and weaknesses helping / hindering the achievement of learning objectives of the course is important in planning the actions ahead. In this regard, students are expected to embark on a PDP process.

At the start, the students are expected to experience the broader scope of the chosen pathway. The TFA1011 **Construction Business and Law** module provide the basis for this as it will highlight the basic characteristics of each of the pathways. This is a Foundation level module (year 1) and the student will explore the basic knowledge and skills requirements to become a professional. During this module, students are expected to undertake a self-evaluation using a SWOT analysis, which will form as the basis to identify the gaps in their skills to complete the course successfully. Accordingly, this module will facilitate the creation of the initial plan for their personal development.

As construction is a multi-disciplinary environment, teamwork is an essential part of all the professionals in the industry. The TIA1029 **Collaborative Project** Built Environment module offered at the intermediate level is intended to mimic this multi-disciplinary environment. Within this module, the students will be asked to reflect on their progress with the PDP actions, and at the same time will be asked to reflect on their skills gaps in working within multi-disciplinary environment. Accordingly, this will serve as monitoring milestone for the PDPs as well as an opportunity to update / renew their PDP objectives and tasks. At the honors level the students are expected to work towards industry orientation and self-reflection is an integral part of this level. The THA1030 **Professional Practice** module offered at this level will provide the students to reflect deeply on their newly gained skills and knowledge and their relevance to the industry practice. This module will be also been enhanced by our industry advisory board through external guest lectures, professional body outreach programme and employability workshops. Students will be encouraged to engage with related professional bodies such as CIAT, with a view to obtaining recognised membership. The PDPs will be reviewed within this module and the final opportunities are provided to overcome any barriers to achieve the planned development goals in the PDPs.

**Other Modules that deliver PDP Content**

While the above modules explicitly facilitate the PDP process, all the other modules within the programme such as **TST1525 placement module** will provide stepping stones to achieve and revise development goals in individual development goals. For example, as the course progresses, it is likely that the students will develop their own interests in specialisations.

The students are expected to keep the PDP as a live document, so that they can adjust their newly found interest in specialisation in their development plans.

Programme Structure BSc (Hons) Architectural Technology

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Year 1 (level 4)** | | **Year 2 (Level 5)** | | Optional Placement Year | **Final Year (Level 6)** | |
| **Term 1** | **Term 2** | **Term 1** | **Term 2** |  | **Term 1** | **Term 2** |
| TFA1011  Construction Business and Law  40 Credits | | TIA1029  Collaborative Project  40 Credits | |  | THA1032  Major Project  40 Credits | |
|  | |  | |  | |
| TFA1016  Design and Construction Practice  40 Credits | | TIA1800 Applied architectural Tech 2 40 credits | | THA1040  Advanced digital detailing & sustainability  40 Credits | |
|  | |  | |  | |
| TFA1015  Building Technology and Digital Communication 40 credits | | TIA1037  Building Technology and Digital Detailing  40 Credits | | THA1043  Procurement and Contract Administration  20 Credits | THA1030  Professional Practice  20 Credits |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Term 1** | **Year 1** | | | **Year 2** | | | **Final Year** | | |
| **Teaching** | **TFA1016** | **TFA1011** | **TFA1015** | **TIA1800** | **TIA1029** | **TIA1037** | **THA1043** | **THA1032** | **THA1040** |
| **Week** | **DCP** | **CBL** | **BTDC** | **AAT** | **CP** | **BTD** | **PCA** | **MP** | ADDS |
| **1** |  |  |  |  |  |  |  |  |  |
| **2** |  |  |  |  |  |  |  |  |  |
| **3** |  |  |  |  |  |  |  |  |  |
| **4** |  |  |  |  |  |  | FA1 |  |  |
| **5** |  |  |  |  |  |  |  |  |  |
| **6** |  | FA1 |  |  | FA1 |  | SA1 |  |  |
| **7** | FA1 |  |  |  |  |  |  |  |  |
| **8** |  |  |  | FA1 |  |  |  | FA1 |  |
| **9** |  |  |  |  | SA1 |  |  |  |  |
| **10** |  |  | SA1-Test |  |  |  |  |  | SA1-Test |
| **11** |  | SA1 |  |  |  | SA2-Test | FA2 |  |  |
| **12** | SA1 |  |  |  |  |  |  | SA1 |  |
| **Exam week** |  |  |  |  | FA2 |  | SA2 - Ex |  |  |
| **Term 2** | **TFA1016** | **TFA1011** | **TFA1015** | **TIA1800** | **TIA1029** | **TIA1037** | **THA1030** | **THA1032** | **THA1040** |
|  | **DCP** | **CBL** | **BTDC** | **AAT** | **CP** | **BTD** | **PP** | **MP** | ADDS |
| **1** |  |  |  |  |  |  |  |  |  |
| **2** |  |  |  |  |  |  |  |  |  |
| **3** |  |  |  |  |  |  |  |  |  |
| **4** |  |  |  |  |  |  |  |  |  |
| **5** |  |  |  |  |  |  | FA1 |  |  |
| **6** |  | FA2 |  | FA2 |  |  |  |  |  |
| **7** | FA2 |  | FA2 |  | FA3 | FA3 |  | FA2 | FA2 |
| **8** |  |  |  |  |  |  | FA2 |  |  |
| **9** |  |  |  |  |  |  |  | FA3 |  |
| **10** |  |  | SA2-CP |  |  | SA2 |  |  |  |
| **11** |  | SA2 |  |  | SA2 |  |  | SA2 |  |
| **12** | SA2 |  |  | SA1 |  | SA3 | SA1 |  | SA2-CP |
| **Exam week** |  |  | SA3 |  | SA3 |  |  | SA3 | SA3 |

**Assessment Schedule**

Outline assessment schedule showing the nature and timing of summative assessments for all modules contributing to the course, including optional modules and identifying the very last submission point for the whole course:

|  |  |  |  |
| --- | --- | --- | --- |
| **Module Code** | **Assessment Task** | **Week number** | **Last Submission of course ()** |
| **TFA1011** | Task 1 Presentation (25%) | Term 1 - Wk 11 |  |
|  | Task 2 Report (75%) | Term 2 - Wk 11 |  |
| **TFA1016** | Task 1 Project work 1 (40%) | Term 1 - Wk 12 |  |
|  | Task 2 Project work 2 (60%) | Term 2 - Wk 12 |  |
| **TFA1015** | Task 1 In class test (30%) | Term 1 Wk 10 |  |
|  | Task 2 Tutorial Portfolio (10%) | Term 2 Wk 10 |  |
|  | Task 3 Technology Portfolio (60%) | Term 2 Wk 13 |  |
| **TIA1029** | Task 1 Presentation (15%) | Term 1 Wk 9 |  |
|  | Task 2 Presentation (15%) | Term 2 Wk 11 |  |
|  | Task 3 Portfolio (70%) | Term 2 Wk 13 |  |
| **TIA1800** | Task 1 Technology Portfolio (100%) | Term 2 Wk 12 |  |
| **TIA1037** | Task 1 In class Test (30%) | Term 1 Wk 11 |  |
|  | Task 2 Tutorial Portfolio (10%) | Term 2 Wk 10 |  |
|  | Task 3 Technology Portfolio (60%) | Term 2 Wk 12 |  |
| **THA1043** | Task 1 Report (50%) | Term 1 Wk 6 |  |
|  | Task 2 Exam (50%) | Term 1 Exam Week |  |
| **THA1030** | Task 1 Portfolio (100%) | Term 2 Wk 12 |  |
| **~~THA1040~~** | Task 1 Tutorial Portfolio (10%) | ~~Term 2 Wk 10~~ |  |
|  | Task 2 In-class test (30%) | Term 1 and 2 various weeks |  |
|  | Task 3 Technology Portfolio (60%) | Term 2 Wk 12 |  |
| **THA1032** | Task 1 Report (30%) | Term 1 Wk 12 |  |
|  | Task 2 Presentation (10%) | Term 2 Wk 11 |  |
|  | Task 3 Dissertation (60%) | Term 2 Wk 13 | Last submission |

**CAB Model**

| **Model** | **Mode of Study** | **Course Start Month** | **Length before Main CAB** | **Expected Month for Main CAB** |
| --- | --- | --- | --- | --- |
| A | UGT FT | September | 9 months | June |

**PSD Appendix**

**University of Huddersfield Graduate Attribute (HGA) Mapping to Modules**

| **Module code** | **HGA 1**  **Self-motivated** | **HGA 2**  **Commercially aware** | **HGA 3**  **Enterprising** | **HGA 4**  **Resilient** | **HGA 5**  **Effective collaborator** | **HGA 6**  **Confident leader** | **HGA 7**  **Globally & socially aware** | **HGA 8**  **Plans personal development** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TFA1011 Construction Business and Law | x | x | x | x |  |  | x | x |
| TFA1016 Design & Construction practice | x | x | x | x | x | x | x |  |
| TFA1015 Building Technology and Digital Communication | x | x | x | x | x | x |  |  |
| TIA1029 Collaborative Project Built Environment | x | x | x | x | x | x | x |  |
| TIA1800 Applied architectural Tech 2 | x | x |  | x |  |  | x |  |
| TIA1037 Building technology and digital detailing | x | x | x | x |  |  | x |  |
| THA1030 Professional Practice | x | x | x | x | x |  | x | x |
| THA1032 Major Project | x | x | x | x | x |  | x |  |
| THA1040 Advanced digital detailing & sustainability | x | x |  | x |  |  | x |  |
| THA1043 Procurement & contract Admin | x | x | x | x |  |  | x |  |

* Please map all modules per award, including option and sandwich modules, where these meet one or more of the HGAs **✓**
* This applies to all UG and PGT awards
* Please use this mapping in conjunction with section 23 of the [MSD](https://www.hud.ac.uk/media/assets/document/registry/validationprocess/Module_Specification_Template_May2021.docx) and the [HGA Mapping Guide](https://www.hud.ac.uk/media/assets/document/registry/validationprocess/HGAsMappingGuide.xlsx)

|  |
| --- |
| If any modules have met an attribute against ‘other’ rather than one of the subcomponents on the MSD please add the module code and the details of how this has been met below: |