BSc Architectural Technology

Architectural Technologists have a leading role in designing and managing projects and working with other professionals to deliver a sustainable built environment. This course covers four key themes- mainly design, technology, management, and practice in the role of an Architectural Technologist. You will learn skills of design, using both manual and digital methods. Emerging technologies used in new buildings or adaptation of existing buildings covering building structures and systems, materials, and components, fabric, and services, will also be covered in this course. In addition to that, you will experience studio practices similar to the practices of working on architectural design organisations.

Modules year 1

Module Title	Module description and context
Architectural Design 1	In this module you will learn standard architectural graphic conventions, structuring the drawings, techniques used in production of architectural drawings, the relationship between representations in plan, elevation and section. The students will be given a project brief with the details of the development site, which will include a low rise domestic or commercial building.
Construction Science, Materials and Environment	Here you will be introduced to the composition and properties of materials used in buildings and structures. This module covers a few areas: common engineering materials used in construction, laboratory measurement of physical properties of materials, and science of the building in relation to its performance.
Construction Technology 1	This module covers different technological concepts used to enable the construction of building elements, from substructure to completion with a focus on low rise domestic buildings and simple industrial and commercial buildings.
Interdisciplinary Design Project 1	You will begin to develop skills in design through a series of tasks where you will have to come up with a range of options to solve a design problem. The student will get introduced to the ways that professionals work collaboratively in design.
Introduction to the Built Environment, Professional skills, and Context	Here you will be introduced to important roles carried out by professionals to create the built environment. The students will learn about the typical professional activities, professional code of conduct and explain how these integrate with all stakeholders, processes and practices in the built environment industry.

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Modules year 2

Module Title	Module description and context
Architectural Design 2	In this module you will develop and justify methods and techniques to prepare detailed design proposals of high-rise commercial buildings. The students apply a problem-solving approach to translate concept design into technical details.
Construction Technology 2	Here you will continue learning about the technology of high-rise frame construction and new methods of construction. Students will develop a deeper understanding of contemporary construction technology principles in complex buildings including basements.
Interdisciplinary Design Project 2	For this project you will present your design appropriately using hand-drawn sketches, computer generated graphics, computer aided drawings, physical models, calculations, specifications, and bills of materials/ quantity. Students will be developing their knowledge of CAE in context and its value in terms of optimisation and parametric design.
Procurement and Contract Law	This module encourages students to adopt a problem-solving approach towards aspects of procurement strategies and contract management. You will justify your solutions by reference to professional principles and practice that are current within the industry.
Professional Practice and Digital Applications	This module aims to support students in future career and employability by encouraging them to demonstrate their digital and professional skills and to develop an understanding of the key considerations required to develop and support their practice, continued study and career aspirations.

Modules year 3

Module Title	Module description and context
Sustainable and Emerging Technologies	Here you will develop knowledge and understanding of how sustainable and emerging technologies are transforming the design, production and management processes of buildings. This is important to ensure that these buildings are energy efficient, resilient to climate change and contributing to UN sustainable development goals. Students will explore and evaluate options for sustainable design and production technologies and management for future buildings.
Construction Project Management	The module covers theories and concepts of project management in construction. Construction projects are complex and provide challenges in managing resources mainly people, plants and materials, specialist subcontractors effectively. Students are introduced to contemporary principles, concepts, processes, tools and methodologies used to complete construction projects successfully.
Research Methods and Dissertation	Here students have an opportunity to independently choose and research a topic in the built environment and take responsibility for managing time, identifying objectives and following a systematic approach to solve/ explore a problem and production of a dissertation.
Interdisciplinary Design Project 3	The project will require researching the background of a site, and developments in construction practices and techniques.

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