Mapping of the Architectural Design Technology Course to the United Nations Sustainable Development Goals (SDGs)

Architectural technologists need technical skills and the ability to apply ethics in their work to create a sustainable built environment. The following mapping shows how each module's learning outcomes connect to a specific Sustainable Development Goal (SDG). Each SDG is linked to a key quality essential for the architectural design technology course, as illustrated in the table below.

SDG		Course / Module Relevant Quality
SDG 1	No Poverty	Addresses housing inequality
SDG 2	Zero Hunger	Core to architecture when food systems are taken into account.
SDG 3	Good Health and Well-Being	Relates to health, wellbeing, and occupant comfort.
SDG 4	Quality Education	Supports education, research, and knowledge development.
SDG 5	Gender Equality	Integrated via an inclusive and gender-sensitive design.
SDG 6	Clean Water and Sanitation	Relevant where water systems and sanitation are addressed.
SDG 7	Affordable and Clean Energy	Applies to energy systems and building performance.
SDG 8	Decent Work and Economic Growth	Relates to economic viability and construction delivery.
SDG 9	Industry, Innovation, and Infrastructure	Covers infrastructure, technology, and innovation.
SDG 10	Reduced Inequalities	Supports inclusive and equitable access to spaces.
SDG 11	Sustainable Cities and Communities	Core to all design and sustainability modules
SDG 12	Responsible Consumption and Production	Relates to materials, lifecycle, and resource use.
SDG 13	Climate Action	Addresses climate-responsive design and mitigation.
SDG 14	Life Below Water	Only relevant in coastal/marine contexts.
SDG 15	Life on Land	Relevant where land/ecology is explicitly addressed.
SDG 16	Peace, Justice and Strong Institutions	Covers planning systems, policy, and governance.
SDG 17	Partnerships for the Goals	Supports interdisciplinary collaboration.

This mapping provides insights into how the Architectural Design Technology curriculum relates to global sustainability targets. Connecting the curriculum with UN Sustainable Development Goals (SDGs) fosters innovation, ethical practices, and systems thinking. It helps students understand how their decisions affect the built environment across environmental, economic, and social dimensions.

All modules contribute to one or more of the 17 UN Sustainable Development Goals. This highlights the important role of Architectural Technologists in building a resilient and sustainable environment.

Level 4 Modules

- **4AT004: Design Studio (Drawing, Graphics, Modelling)**
    - **SDG 4:** Quality Education: The module develops skills and competencies that are crucial to the industry
    - **SDG 9:** Industry, Innovation and Infrastructure: The module utilises innovative design tools and processes.
    - **SDG 11:** Sustainable Cities and Communities: The module focuses on designing sustainable urban and rural spaces.
- **4AT009: Sustainable Architecture Principles**
    - **SDG 3:** Good Health and Well-Being: The module explores human comfort and inclusivity through sustainable design.
    - **SDG 11:** Sustainable Cities and Communities: The module's core focus is on sustainable design principles.
    - **SDG 12:** Responsible Consumption and Production: The module emphasises sustainable material use and waste reduction.
    - **SDG 13:** Climate Action: The module directly addresses the environmental impact of buildings.
- **4AT018: Materials, Construction, and Structure**
    - **SDG 9:** Industry, Innovation and Infrastructure: The module focuses on innovative and durable construction methods.
    - **SDG 12:** Responsible Consumption and Production: the module explores sustainable and recycled materials.
    - **SDG 13:** Climate Action: The module considers the carbon footprint of materials and construction.

- **4AT019: Digital Design**
    - **SDG 9:** Industry, Innovation and Infrastructure: The module leverages digital technology to streamline design and construction.
    - **SDG 10:** Reduced Inequalities: The module supports design solutions that ensure equitable access to spaces.
    - **SDG 11:** Sustainable Cities and Communities: The module uses digital tools to optimise the design of sustainable spaces.
- **4AT021: Integrated Design Studio**
    - **SDG 3**: Good Health and Well-Being: The module emphasises that design solutions must provide spaces appropriate for human comfort and well-being.
    - **SDG 7**: Affordable and Clean Energy: As a design module, renewable energy and its technologies must be included in the portfolio.
    - **SDG 11:** Sustainable Cities and Communities: The module integrates various design elements to create holistic, sustainable projects.
    - **SDG 17:** Partnerships for the Goals: The module often involves collaboration and integrated approaches, which mirror the spirit of this SDG.

Level 5 Modules

- **5AT002: Design Studio: Retrofit and Adaptive Reuse**
    - **SDG1:** No Poverty: The Module addresses the adaptive reuse of existing buildings to address housing inequality.
    - **SDG2:** Zero Hunger: Element of the landscape in this module focuses on food systems.
    - **SDG 11:** Sustainable Cities and Communities: The module directly focuses on revitalising and retrofitting existing structures.
    - **SDG 12:** Responsible Consumption and Production: The module promotes reuse over new construction, reducing waste.
- **5AT013: Technical Design Studio**
    - **SDG 3:** Health and Well-Being: The module ensures compliance with the Building Safety Act.
    - **SDG 8:** Decent Work and Economic Growth: The module focuses on the sustainable delivery of construction projects.

- **SDG 9:** Industry, Innovation and Infrastructure: The module promotes technical skills for modern, efficient building practices.
- **SDG 11:** Sustainable Cities and Communities: The module applies technical knowledge to real-world, sustainable design challenges.

- **5AT014: Design Statutory Approvals**
  - **SDG 3:** Health and Well-Being: The module covers all the statutory legislation, including human comfort.
  - **SDG 6:** Clean Water and Sanitation: The module covers approved documents that focus on water and sanitation in buildings.
  - **SDG 7:** Affordable and Clean Energy: The module covers approved documents that ensure energy efficiency.
  - **SDG 11:** Sustainable Cities and Communities: The module ensures designs meet standards for public safety and sustainability.
  - **SDG 16:** Peace, Justice and Strong Institutions: The module focuses on the legal and regulatory frameworks that ensure safe and fair building practices.
- **5AT017: Industrial Placement**
  - **SDG 1:** No Poverty: The module is designed to enable students to undertake professional work and generate income.
  - **SDG 8:** Decent Work and Economic Growth: The module provides practical experience and skills for the job market.
  - **SDG 9:** Industry, Innovation and Infrastructure: the module exposes students to real-world industry practices and innovation.
  - **SDG 11:** Sustainable Cities and Communities: The aim of the module is to enable the students to apply theoretical knowledge to professional projects.
- **5AT018: BIM Integrated Design**
  - **SDG 4:** Quality Education: The module covers BIM processes, skills and competencies that are crucial to the industry.
  - **SDG 9:** Industry, Innovation and Infrastructure: The module uses BIM as an innovative technology for efficient design and construction.
  - **SDG 12:** Responsible Consumption and Production: BIM application within the module can help optimise resource use and reduce waste.
- **5AT020: Advanced Materials, Construction, and Structure**

- **SDG 9:** Industry, Innovation and Infrastructure: The module involves advanced, often innovative, building technologies.
- **SDG 12:** Responsible Consumption and Production: The module includes a deep dive into sustainable and advanced materials.
- **SDG 13:** Climate Action: The module examines materials with a reduced environmental impact.

- **5AT024: City and Urbanism**
  - **SDG1:** No Poverty: The module covers the urbanism movement and the impact of key factors on housing inequality.
  - **SDG 5:** Gender Equality: The module covers the integrated urban design theories that emphasise inclusive and gender-sensitive designs.
  - **SDG 11:** Sustainable Cities and Communities: The core focus of the module is on urban planning and sustainable city design.
  - **SDG 10:** Reduced Inequalities: The module considers how urban design can address social and economic disparities.

Level 6 Modules

- **6AT009: Special Studies Dissertation**
  - **SDG 4:** Quality Education: The module promotes independent research and advanced learning.
  - **SDG 14:** Life Below Water: The research themes include the integrated technology that empowers architecture to support the ecosystem and biodiversity in coastal areas.
  - **SDG 15:** Life on Land: The module's research themes include land use and the ecological impact of the project on nature.
  - **SDG 17:** Partnerships for the Goals: The module often involves research into complex, interdisciplinary issues that require collaboration.
  - **All other relevant SDGs:** This module has the potential to touch upon any of the 17 SDGs, depending on the chosen research topic.
- **6AT014: Architectural Practice & Management**
  - **SDG 4:** Gender Equality: The module addresses the themes of architectural practice, including the underrepresented sectors of society.

- **SDG 8:** Decent Work and Economic Growth: The module covers the professional aspects of the industry, including ethics and business management.
- **SDG 16:** Peace, Justice and Strong Institutions: The module covers professional ethics, contracts, and legal frameworks

- **6AT015: Major Project and Exhibition**
  - **SDG 9:** Industry Innovation and Infrastructure: All students must incorporate innovative technologies to support the efficiency and functionality of their designs.
  - **SDG 11:** Sustainable Cities and Communities: The module emphasises holistic approaches and projects, which demonstrate a comprehensive, sustainable design solution.
  - **SDG 13:** Climate Action: Climate-responsive design is a key factor shaping the designs within this module.
  - **SDG 17:** Partnerships for the Goals: The module requires synthesising knowledge from all previous modules, which is a form of partnership between different knowledge domains.
  - **All other relevant SDGs:** The major project is an opportunity for students to apply their knowledge to a project that could address any number of the SDGs, from urban farming (**SDG 2: Zero Hunger**) to designing a health clinic (**SDG 3: Good Health and Well-Being**).
- **6AT020: Technology Led Conservation Studio**
  - **SDG 9:** Industry Innovation and Infrastructure: The module employs the most up-to-date technology required for heritage surveying and conservation
  - **SDG 11:** Sustainable Cities and Communities: The module focuses on preserving, revitalising, and retrofitting heritage buildings.
  - **SDG 12:** Responsible Consumption and Production: The module emphasises the conservation of resources through the reuse of existing structures.