



Module Specification

City Lab: Digital Design Skills

Version: 2026-27, v1.0, Approved

Contents

Module Specification	1
Part 1: Information	2
Part 2: Description	2
Part 3: Teaching and learning methods	4
Part 4: Assessment.....	5
Part 5: Contributes towards	7

Part 1: Information

Module title: City Lab: Digital Design Skills

Module code: UBLLB3-15-1

Level: Level 4

For implementation from: 2026-27

UWE credit rating: 15

ECTS credit rating: 7.5

College: College of Arts, Technology and Environment

School: CATE School of Architecture and Environment

Partner institutions: None

Field: Architecture and the Built Environment

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: Yes

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Step into the future of planning with this dynamic module designed for aspiring professionals who want to harness the power of digital tools to shape better places. Whether students are keen to work in local government, consultancy, or the third sector, they will gain the confidence and capability to navigate the UK's evolving digital planning landscape.

From mastering Microsoft 365 and understanding ethical tech use, to exploring

cutting-edge platforms like BOPS and Plan X, this module builds students' digital literacy from the ground up. They will learn to create compelling site analysis maps, manipulate spatial data, and visualise planning proposals using tools like GIS and Autodesk Forma. Alongside hands-on skills, they will engage with real-world datasets and explore how innovations like AI and Smart Cities are transforming planning practice. By the end, students will be ready to communicate insights clearly—whether they're briefing colleagues, presenting to the public, or contributing to strategic decisions.

Features: Not applicable

Educational aims: The module aims to build digital confidence, technical fluency and strategic capability for emerging professional planners. This first stage in the City Lab module series develops key foundational skills in digital literacy, which gradually progress into advanced skills in Year 2 (City Lab: Development Economics) and transformative competencies in Year 3 (City Lab: Strategic Planning) of the BSc Urban Planning programme.

Outline syllabus: An indicative outline of syllabus is below:

Digital Literacy and Ethics - Microsoft Office 365 essentials (Outlook, Teams, Sharepoint); Cybersecurity awareness and GDPR fundamentals; Ethical use of digital tools.

Planning Tech orientation - Digital planning platforms such as BOPS (Back office planning system), Plan X, Digital Skill Portal etc; RTPI's digital planning principles - transparency, efficiency, engagement.

GIS and spatial thinking - introduction to GIS concepts (coordinate systems, projections, map scales); software basics (interface navigation; creating maps, adding layers, basic symbology); data handling (importing shapefiles, CSVs and geodatabases, understanding attribute table); basic spatial analysis (buffering, clipping and spatial joins; site selection using simple criteria); planning use cases (mapping land use, conservation areas, flood zones).

Data awareness - Excel for planners - formulas, pivot tables and charts; Census

data, Open Data, and local datasets; understanding evidence-based planning.

Visualisation - using Autodesk Forma: to create site map and import relevant data site layouts; to carry out basic site analysis (terrain modelling, solar shading etc.); to integrate data (e.g., transport, flood risk etc.); to overlay planning constraints and policy layers; to develop conceptual designs (by considering building footprints, assessing height, density and land use compatibility); finalise proposal for site after identifying potential sustainability concerns; communicating insights to ordinary members of the public as well as professionals drawing on range of visual techniques.

Emerging tech in Planning - AI, Digital Twins, Smart Cities; Embracing innovation to enhance planning outcomes.

Part 3: Teaching and learning methods

Teaching and learning methods: One-hour lecture per week:

Delivered by the module team and guest speakers from planning authorities, tech firms, and data ethics specialists. Lectures introduce key concepts, tools, and debates, providing students with foundational knowledge of digital systems used in planning practice, as well as emerging technologies shaping the future of the profession.

Two-hour tutorial per week:

Interactive, hands-on sessions focused on developing students' digital competencies through guided exercises, group work, and scenario-based tasks. Tutorials reinforce lecture content and support skill development in GIS, data analysis, visualisation, and ethical digital practice.

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 Develop critical awareness of foundational knowledge of digital planning systems in the UK and appreciate how digital planning unfolds across the public,

private, and third sectors, fostering professional insight into sector-specific roles, expectations, and career pathways.

MO2 Demonstrate confidence in creating basic site analysis maps, manipulating spatial data, and producing layouts that communicate site proposals effectively

MO3 Build core digital literacy and strengthen competence in basic spatial and data analysis techniques, supporting evidence-based decision-making in professional planning contexts.

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 114 hours

Face-to-face learning = 36 hours

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://rl.talis.com/3/uwe/lists/02FFED50-E302-7B93-5589-56561C5B87B7.html?lang=en-GB&login=1) via the following link <https://rl.talis.com/3/uwe/lists/02FFED50-E302-7B93-5589-56561C5B87B7.html?lang=en-GB&login=1>

Part 4: Assessment

Assessment strategy: This module culminates in a summative assessment through the submission of a Digital Planning Portfolio, designed to showcase students' analytical, technical, and conceptual planning skills. The portfolio integrates a range of digital tools and data sources to explore and communicate a site-based planning proposal.

Key components include:

GIS-Based Site Analysis - Develop a spatial map using GIS software, incorporating relevant data layers and applying basic symbology to interpret site characteristics and contextual relationships.

Data Analysis Using Excel - Conduct quantitative analysis using Census or Open Data sets. Present findings through charts, graphs, and pivot tables to support

evidence-based planning decisions.

Conceptual Site Proposal in Autodesk Forma - Create a visual representation of a proposed site intervention using Autodesk Forma, demonstrating spatial thinking and design intent.

Planning Commentary - Provide a concise written reflection addressing key planning constraints, sustainability considerations, and the rationale behind the student's design choices.

Key rationale

This portfolio mirrors the expectations of planning consultancies, local authorities, and design-led organisations. It enables students to:

Build a showcase-ready body of work for job applications or interviews

Demonstrate fluency in digital tools used in contemporary planning practice

Communicate complex ideas clearly to diverse audiences

Engage critically with sustainability and health-related planning challenges

Resit briefs are the same as the first sit.

Formative feedback takes place during the module and considers the development of the professional planner and nurtures a critical and reflective mindset.

Formative feedback will consist of:

Discussion between peers within the lectures, tutorials and other scheduled sessions

Comments on coursework drafts by the teaching team

Use of interactive online tools (e.g. Menti) for students to post ideas/questions relating to taught content/coursework

Assessment tasks:

Practical Skills Assessment (First Sit)

Description: Digital Planning Portfolio that includes the following:

- GIS-based site analysis map with spatial data layers and basic symbology

- Excel-based data analysis using Census or Open Data (e.g., charts, pivot tables)
- Autodesk Forma visualisation of a conceptual site proposal
- Brief commentary on planning constraints, sustainability concerns, and design rationale

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3

Practical Skills Assessment (Resit)

Description: Digital Planning Portfolio that includes the following:

- GIS-based site analysis map with spatial data layers and basic symbology
- Excel-based data analysis using Census or Open Data (e.g., charts, pivot tables)
- Autodesk Forma visualisation of a conceptual site proposal
- Brief commentary on planning constraints, sustainability concerns, and design rationale

Weighting: 100 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Urban Planning [Frenchay] BSc (Hons) 2026-27