London South Bank University

EST 1892

Module Guide

Communication 2 Digital Design

EBB-5-512

BA (Hons) Architecture

FT2|PT4| L6 Architecture Apprenticeship

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1. MODULE DETAILS

Module Title:	Communication 2 Digital Design
Module Level:	5
Module Reference Number:	EBB_5_512
Credit Value:	20
Student Study Hours:	140
Contact Hours:	60
Private Study Hours:	0
Pre-requisite Learning (If applicable):	None
Co-requisite Modules (If applicable):	None
Course(s):	BA (Hons) Architecture L6 Architecture Apprenticeship
Year and Semester	FT2-PT4, L6 Architecture Apprenticeship Semester 1-2
Module Coordinator:	Federico Rossi
MC Contact Details (Tel, Email, Room)	Federico.rossi@lsbu.ac.uk
Teaching Team & Contact Details (If applicable):	Onur Ozkaya, ozkayao@lsbu.ac.uk Hyunbai Jun, Junh@lsbu.ac.uk
Subject Area:	Architecture
Summary of Assessment Method:	Summative Assesment : Portfolio, physical models and Digital media
External Examiner appointed for module:	Melissa Clinch, Ben Cowd, Professor Kevin singh

2. SHORT DESCRIPTION

This module uses a discrete design project to familiarize students with the skills, techniques and metholodiges pertinent to digital design and architectural visualisation.

3. AIMS OF THE MODULE

This module aims to expand students understanding of digital tools in architecture from means of representation to genuine design, as well as to familiarize them workflows such as new digital skills, tools and techniques.Through the use of design as integrative activity, it aims to ground digital design in its appropriate theoretical and historic context.

4. LEARNING OUTCOMES

4.1 Knowledge and Understanding

GC1 Ability to create architectural designs that satisfy both aesthetic and technical requirements

- GC1.1 prepare and present building design projects of diverse scale, complexity, and type in a variety of contexts, using a range of media, and in response to a brief;
- GC1.2 understand the constructional and structural systems, the environmental strategies and the regulatory requirements that apply to the design and construction of a comprehensive design project;
- GC1.3 develop a conceptual and critical approach to architectural design that integrates and satisfies the aesthetic aspects of a building and the technical requirements of its construction and the needs of the user.

GC2 Adequate knowledge of the histories and theories of architecture and the related arts, technologies and human sciences

- GC2.1 the cultural, social and intellectual histories, theories and technologies that influence the design of buildings;

- GC2.2 the influence of history and theory on the spatial, social, and technological aspects of architecture;
- GC2.3 the application of appropriate theoretical concepts to studio design projects, demonstrating a reflective and critical approach.

GC3 Knowledge of the fine arts as an influence on the quality of architectural design

- GC3.1 how the theories, practices and technologies of the arts influence architectural design;
- GC3.2 the creative application of the fine arts and their relevance and impact on architecture;
- GC3.3 the creative application of such work to studio design projects, in terms of their conceptualisation and representation.

GC4 Adequate knowledge of urban design, planning and the skills involved in the planning process

- GC4.1 theories of urban design and the planning of communities;
- GC4.2 the influence of the design and development of cities, past and present on the contemporary built environment;
- GC4.3 current planning policy and development control legislation, including social, environmental and economic aspects, and the relevance of these to design development.

GC5 Understanding of the relationship between people and buildings, and between buildings and their environment, and the need to relate buildings and the spaces between them to human needs and scale

- GC5.1 the needs and aspirations of building users;
- GC5.2 the impact of buildings on the environment, and the precepts of sustainable design;
- GC5.3 the way in which buildings fit into their local context.

GC6 Understanding of the profession of architecture and the role of the architect in society, in particular in preparing briefs that take account of social factors

- GC6.1 the nature of professionalism and the duties and responsibilities of architects to clients, building users, constructors, co-professionals and the wider society;
- GC6.2 the role of the architect within the design team and construction industry, recognising the importance of current methods and trends in the construction of the built environment;
- GC6.3 the potential impact of building projects on existing and proposed communities.

GC7 Understanding of the methods of investigation and preparation of the brief for a design project

- GC7.1 the need to critically review precedents relevant to the function, organisation and technological strategy of design proposals;
- GC7.2 the need to appraise and prepare building briefs of diverse scales and types, to define client and user requirements and their appropriateness to site and context;
- GC7.3 the contributions of architects and co-professionals to the formulation of the brief, and the methods of investigation used in its preparation.

4.2 Intellectual Skills

Ability to generate design proposals using understanding of a body of knowledge, some at the current boundaries of professional practice and the academic discipline of architecture;

Ability to apply a range of communication methods and media to present design proposals clearly and effectively;

4.3 Practical Skills

Ability to evaluate evidence, arguments and assumptions in order to make and present sound judgments within a structured discourse relating to architectural culture, theory and design;

4.4 Transferable Skills

Knowledge of the context of the architect and the construction industry, and the professional qualities needed for decision making in complex and unpredictable circumstances;

5. ASSESSMENT OF THE MODULE

The results of the workshop work will be assembled digitally and prepared as a book and physical model entirely using the digital manufacturing facilities available in the campus. Any group and individual work will be assessed accordingly.

6. FEEDBACK

Feedback will normally be given to students 15 working days after the final submission of an assignment or as advised by their module leader.

General feedback, applying to all students, will also be placed on the module VLE site within 15 working days.

7. INTRODUCTION TO STUDYING THE MODULE

7.1 Overview of the Main Content

Students are given assignments which are co-ordinated and in support of project work undertaken for design modules. Through these assignments, students are familiarised with key skills, including hand and computer drawing, physical models, photography.

7.2 Overview of Types of Classes

2d/3d CAD, BIM, Photography, Model Making, Presentation Skills, Portfolio

7.3 Importance of Student Self-Managed Learning Time

Student responsibility in the learning and development process will be emphasised. Students are required to undertake directed self-study and prepare solutions/discussions to questions relative to various topic areas. Students will be encouraged to identify for themselves particular problems of difficulty and to use seminar discussions, where appropriate, for the resolution of these. Students must regularly access the Moodle site for this module. They should download the class/lecture material from the Moodle site, and do the recommended reading, before each lecture/class.
Where appropriate, students are also expected to download the relevant seminar questions and study them in advance of each seminar, in order to derive maximum benefit from seminar time. The programme of teaching, learning and assessment gives guidance on the textbook reading required for each week, the purpose of which is to encourage further reading both on and around the topic.

7.4 Employability

This unit contributes to 50% design coursework and assessment required by the RIBA for Part 1 qualifications.

8. THE PROGRAMME OF TEACHING, LEARNING AND ASSESSMENT

SEMESTER 1		
WEEK	TOPIC	READING (CORE TEXT)
1	Introduction to the Module	
2	Short Course introduction (BIM, Advanced 3d, Portfolio and Photography)	
3	Workshop / Demonstration (Drawing Tools)	
4	Workshop / Demonstration (Modification Tools)	
5	Workshop / Demonstration (Annotation and Labeling)	
6	Presentation (Plotting / Printing)	
7	Workshop / Demonstration (Advanced 3d Tools)	
8	Workshop / Demonstration (Computation in CAD)	
9	In Group Sessions	
10	In Group Sessions	
11	In Group Sessions	
12	Final Submission	

9. STUDENT EVALUATION

Students will be asked to provide feedback on the course by anonymously filling out and submitting the standard LSBU Module Evaluation Form

10. LEARNING RESOURCES

Reading List

- Mastering AutoCAD 2015 and AutoCAD LT 2015 / by George Omura with Brian C. Benton
- AutoCAD 2014 and AutoCAD LT 2014 : no experience required / Donnie Gladfelter

- AutoCAD for architecture : Release 14 / Alan Jefferis, Michael Jones

- Accessing AutoCAD Architecture 2009 /William Wyatt
- AutoCAD for architectural drawing / Beverly L. Kirkpatrick, James M. Kirkpatrick#

- Architectural drawing / David Dernie

- Reiser + Umemoto, Atlas of Novel Tectonics, Princeton Architectural Press, 1 Edition, 1999
- Hadid, Z + Schumacher, Total Fluidity on all Scales Architecture Beyond Building
- vab Berkel, B + Bos, C UN Studio: Design Models Architecture, Urbanism, Infrastructure Rizzoli, 2006
- Benjamin, A, Lasch, C, Balmond, C, Kwinter, S Tooling (Pamphlet Architecture) Princeton Architectural Press, 1 Edition, 2006