

1.	Programme Title	BA (Hons) Architecture BA (Hons) IDEAs
2.	Unit Title	Specialist Study 2: Introduction to Construction
3.	HE Level	UG 1 - FHEQ Level 4
4.	Unit Code	ARC16104
5.	Credit Value of Unit	30
6.	Unit Type	Mandatory
7.	Unit Tutor	Graham Stretton

8. Indicative Notional Learning Hours			
Staff – Student Contact		Independent Study Hours	
Classes (e.g. lectures, seminars and supervised group activity)	62	Independent Study (e.g. project development, reading, research and work on online forums)	92
Supervised Access to Resources	28	Preparation for Assessment	80
		Unsupervised Access to Resources	38
Total	90		210

9. Unit Introduction

This is a design unit that develops methods of three-dimensional analysis and representation, measurement, documentation and modelling skills necessary for communication in the built environment.

The unit focuses on the design of a small structure and its surroundings. It will introduce concepts of urban scale, the interrelationship of space and use, and the location of built form within urban infrastructure and temporal cycles of human activities. It will introduce students to how to develop communication skills necessary to describe the construction methods proposed

10. Aims of the Unit

The unit aims to:

- Introduce the skills and knowledge necessary for the production of a small scale free-standing building, structure or installation and the imperatives which drive their creation and use;
- Examine the relationship between qualities of an interior space, the externalised form of the building and its urban or landscape setting);
- Develop an awareness of the uses of and application of information technologies in design;
- To introduce the impact of construction types and processes on design.

11. Indicative Content

Topics covered in this unit will include:

- Design research and the collation of information;
- Small scale urban interventions and simple structures;
- Development of 2D and 3D analytical and representational drawing skills, sketching, perspective, orthographic projection by hand and digitally;

- Surveying and measurement skills, documentation and modelling, mapping and digital techniques and their role in developing a feasibility study and a design brief;
- Building construction, detail and the construction process;
- Outline feasibility studies: ergonomics, space planning and an introduction to sustainability.

12. Unit Learning Outcomes

In order to successfully satisfy the learning outcomes students are required to engage with the process of learning. The learning outcomes refer to developing the following attributes and must be read in conjunction with these:

GA1.1 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;

GA1.2 Ability to apply a range of communication methods and media to present design proposals clearly and effectively;

GA1.3 Understanding of the alternative materials, processes and techniques that apply to architectural design and building construction.

Learning Outcome	Marking Criteria	
On completion of this unit students will have demonstrated:		
1. knowledge of construction principles, types and techniques and the ways that these may inform and influence design decisions; (ref: ARB/RIBA GC8.2)	<input checked="" type="checkbox"/> Research <input checked="" type="checkbox"/> Analysis <input checked="" type="checkbox"/> Subject Knowledge <input type="checkbox"/> Experimentation	<input checked="" type="checkbox"/> Technical Competence <input type="checkbox"/> Communication & Presentation <input type="checkbox"/> Personal & Professional Development <input type="checkbox"/> Collaborative and / or Independent Professional working
2. knowledge of the properties and environmental impact of materials: their historical significance and manufacture; (ref: ARB/RIBA GC8.3)	<input checked="" type="checkbox"/> Research <input checked="" type="checkbox"/> Analysis <input checked="" type="checkbox"/> Subject Knowledge <input type="checkbox"/> Experimentation	<input type="checkbox"/> Communication & Presentation <input type="checkbox"/> Personal & Professional Development <input type="checkbox"/> Collaborative and / or Independent Professional working
3 the ability to analyse and record an urban site, including social, economic and cultural factors, construction, materiality, colour, form and texture; (ref: ARB/RIBA GC7.2)	<input checked="" type="checkbox"/> Research <input checked="" type="checkbox"/> Analysis <input type="checkbox"/> Subject Knowledge <input checked="" type="checkbox"/> Experimentation	<input checked="" type="checkbox"/> Technical Competence <input checked="" type="checkbox"/> Communication & Presentation <input checked="" type="checkbox"/> Personal & Professional Development <input type="checkbox"/> Collaborative and / or Independent

		Professional working
4. the ability to develop a design proposal for a small building according to a simple programme of use, taking into account the urban scale of its setting; (ref: ARB/RIBA GC1.1, GC5.1, GC5.3)	<input type="checkbox"/> Research <input checked="" type="checkbox"/> Analysis <input type="checkbox"/> Subject Knowledge <input checked="" type="checkbox"/> Experimentation	<input checked="" type="checkbox"/> Technical Competence <input checked="" type="checkbox"/> Communication & Presentation <input checked="" type="checkbox"/> Personal & Professional Development <input checked="" type="checkbox"/> Collaborative and / or Independent Professional working
5. understanding of the use of digital media in the creative process and representation of a design.	<input type="checkbox"/> Research <input type="checkbox"/> Analysis <input type="checkbox"/> Subject Knowledge <input checked="" type="checkbox"/> Experimentation	<input type="checkbox"/> Technical Competence <input checked="" type="checkbox"/> Communication & Presentation <input checked="" type="checkbox"/> Personal & Professional Development <input type="checkbox"/> Collaborative and / or Independent Professional working

Please see the Project Brief for a more detailed explanation of the relationship between learning outcomes and marking criteria.

13. Learning and Teaching Methods

This unit will be delivered using a combination of:

- Briefings
- Lectures
- Project work
- Seminars
- Workshops
- Group work
- Online activity
- Individual Presentations and critiques
- Group presentations and critiques
- Self-directed independent study
- Other (describe below)

14. Assessment Methods

Indicative Assessment Tasks

As part of a group:

1. Observation and Survey
Compile and present (drawings – adequate to describe basic conformation and elements) an orthogonal 2D and 3D site / building survey .
2. Description and analysis
In relation to your brief, investigate and present an analysis of a site incorporating past, present and future use, plans, activities to assess the feasibility of using the site.

Individually:

1. Develop a brief, design and model a 3D structure;
2. Undertake precedent studies and analysis of user groups;
3. Construct a dossier of construction materials;
4. Research the history and design of a particular element of provision;
5. Summarise design proposals in an online report that coherently documents the project;
6. Interim Crit – present work to date. Final Crit present design proposals

All assessment components to be uploaded at formative and summative stages on Moodle

The assessment for this unit is weighted. In element-based assessment, you must achieve at least an E grade in each element, and an aggregate grade of at least D- in the overall unit. Failure (F, or F-), or non-submission in any element defaults to Fail for the unit.

This unit is assessed through two elements, weighted as follows:

Group work (40%): Tasks 2 and 3

Individual Project (60%): Tasks 1, 4, 5 and 6

All learning outcomes must be achieved to pass this unit.

15. Reading and Resource List

- Aymonino, A & V.P. Mosco (2007) *Contemporary Public Space: Un-volumetric Architecture* Lausanne: Skira;
- Bernard, S & H. Loidl (2003) *Opening Spaces: Design as Landscape Architecture* Basel Berlin Boston: Birkhäuser;
- Buxton, P. (2015) *Metric Handbook: Planning and Design Data* Architectural Press;
- Clark, R.H. & M. Pause (2012) *Precedents in Architecture: Analytical Diagrams* Hoboken: Wiley;
- De Bono, E. (2010) *Lateral Thinking : Handbook for Creativity*, London: Penguin
- Foster, Jack (1994-2000) *Mitchell's Building Construction* Vols. 1-4. Harlow: Longman;
- Cantrell, Bradley and W Michaels (2010) *Digital Drawing for Landscape Architecture* Hoboken: Wiley

Entwistle, Trudi and Edwin Knighton (2013) *Visual Communication for Landscape Architecture*. London and New York: Fairchild Books.

Laseau, P. (2001) *Graphic Thinking for Architects and Designers* Hoboken: Wiley;

Reid, Grant W. (1987) *Landscape Graphics 2nd ed.* New York: Watson-Guption Publications

Unwin, S. (2003) *Analysing Architecture* London: Routledge.

Waterman, Tim (2015) *Fundamentals of Landscape Architecture 2nd ed.* London: Fairchild;

Zell, Mo (2008) *The Architectural Drawing Course* London: Quarto

Report Writing:

Bowden, J. (2004) *Writing a report: how to prepare, write and present effective reports* Oxford: How to Books.

Gravett, S. (1998) *The Right Way to Write Reports: That are Accurate, Clear, Concise and Effective* Tadworth: Right Way.

Further Reading and Resources

Further reading and resources will be identified in your Brief.