

2021-22 Postgraduate Module Handbook

09 School of Architecture

AR821		Film and Architecture				
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Autumn	M	15 (7.5)	100% Coursework with Compulsory Numeric Elements	
2	Canterbury	Autumn	M	15 (7.5)	100% Coursework	

Contact Hours

Total contact hours: 30 hours
 Private study hours: 120 hours
 Total study hours: 150 hours

Learning Outcomes

The intended subject specific learning outcomes.
 On successfully completing the module students will be able to demonstrate:

- 1 A comprehensive understanding of the relationship of the camera to architecture and the built environment
- 2 An ability to demonstrate through writing and oral presentation a systematic knowledge of the histories and theories of architecture in and of film
- 3 An ability to critically appraise and form considered judgements about the importance of the narrative, symbolism and aesthetic treatment of architecture in film and animation

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to deal with complex issues about the cultural context of film and architecture, making sound judgements and communicate conclusions to a specialist audience in both written and oral presentation.
- 2 An ability to continue to advance knowledge and understanding of the history and theory of film and architecture.

Method of Assessment

Main assessment methods

Seminar presentation (50%)
 Essay (3,500 words) (50%)

Reassessment methods

Like for like with the following clarification:

Video Presentation with associated notes on topic (50%)
 Essay (3,500 words) (50%)

Preliminary Reading

Indicative Reading List

Lamster, M. (2000). *Architecture and Film*. New York: Princeton Architectural Press.
 Penz, F & Thomas, M. (1997). *Cinema & Architecture: Melies, Mallet-Stevens, Multimedia*. London: British Film Institute.
 Shonfield, K. (2000). *Walls Have Feelings: Architecture, Film & the City*. London: Routledge.

Pre-requisites

None

Synopsis *

This module reviews the representation of architecture in film through history, by looking at influential cinematic depictions of the built form. With light being such an important factor in both disciplines, the links between the two industries are explored, analysing films from early German expressionist cinema through to present-day utopian/dystopian films. Students will investigate how the cinematic depiction of architecture can alter the character of the built environment and the way in which it is portrayed. This module aims to explore the relationship of architecture to lens, and screen to audience.

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AR822		Virtual Cities				Convenor
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	
2	Canterbury	Whole Year	M	30 (15)	100% Coursework	

Contact Hours

Total contact hours: 60 hours

Private study hours: 240 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An understanding of the principles of 3D modelling in a digital environment and its application to the architectural, games and film industries
- 2 A comprehensive understanding of the techniques associated with the creation of complex digital architectural and urban models, their environmental conditions and the format of output appropriate to its market
- 3 An ability to create complex 3D digital models of an architectural or urban nature, evaluating the realism and graphic format appropriate to its target market
- 4 An ability to evaluate working methodologies and current industrial practice, developing skills and techniques

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to demonstrate self-direction and act autonomously in planning and creating 3D digital modelling at a professional level
- 2 An ability to deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences
- 3 An ability to independently advance their knowledge and understanding of 3D digital modelling and develop skills to a professional level

Method of Assessment

Main assessment methods

Presentation and critique of Digital Projects (100%)

Reassessment methods

Like for like.

Preliminary Reading

Indicative Reading List

Byrnes, D. (2009). AutoCAD 2010 for Dummies. Hoboken: Wiley Publishing.

Cusson, R & Cardoso, J. (2009). Realistic Architectural Vizualisation with 3DS MAX and Mental Ray (Second Edition).

Oxford: Taylor & Francis Ltd

Murdock, K. (2009). 3DS MAX 2010 Bible. Indianapolis: Wiley Publishing.

Sondermann, H. (2009). Photoshop in Architectural Graphics. New York: Springer Wien

Pre-requisites

None

Synopsis *

This module will explore the digital representation of and in the urban environment. Students will use 2D and 3D software to develop the relationship between actual and virtual cities, navigating the past, present and future. Drawing from professional practice in a number of industries, such as architectural visualisation, projection-mapping, heritage, film and games, this work highlights the differing approaches that each profession takes in the digital creative process.

AR823		Digital Architecture				Convenor
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	
2	Canterbury	Autumn	M	15 (7.5)	100% Coursework	

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AR827		Principles of Environmental Design				
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Autumn	M	30 (15)	60% Coursework, 40% Exam	
2	Canterbury	Autumn	M	30 (15)	100% Coursework	

Contact Hours

Total contact hours: 36 hours

Private study hours: 264 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 A comprehensive understanding of the driving forces for internal and external conditions and how they can be modified including: ventilation, lighting, heating, cooling,
sound attenuation, indoor air quality, comfort.
- 2 A critical awareness of the design approaches used, and their success or otherwise, in a range of good and bad exemplar buildings.
- 3 A thorough ability to analyse and assess buildings and possible design solutions on a life cycle basis so that decisions can be made based on long term sustainability.
- 4 A detailed understanding of the practical constraints on sustainable design in terms of context, and refurbishment and legislation.
- 5 A comprehensive knowledge and understanding of the techniques, tools and advanced materials available for sustainable design.
- 6 A detailed understanding of the need and approaches required to design for future weather and climate.

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 A comprehensive ability to design a building that fulfils its function with minimal resource requirements and for those to be met through sustainable means as far as possible.
- 2 An ability to assess environmental claims for products/designs critically.

Method of Assessment

Main assessment methods

Case Study (5,000 words)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

- Baker, N.V., Fanchiotti, A., Steemers, K. A. (1993). Daylighting in Architecture. James & James
 Givoni, B. (1998). Climate considerations in building and urban design. Van Nostrand Reinhold
 Goedkoop, M., Spriensma, R. (2001). The Eco-indicator 99: A damage oriented method for life cycle impact assessment: Methodology report. PRé,
 Liddament, M.W. (1996). A guide to energy efficient ventilation. Air Infiltration and Ventilation Centre,
 Santamouris, M. (2003). Solar thermal technologies for buildings. James & James.
 Thomas, R. (2002). Sustainable urban design: an environmental approach. Taylor & Francis

Pre-requisites

None

Synopsis *

The module consists of lectures that describe the important energy and material flows in a building and how these are driven and can be regulated. This includes methods for calculating the flow, storage and release of heat in a range of media including phase change materials, determining daylight provision, and calculations for providing sufficient passive ventilation.

Built exemplar buildings are explored and their success assessed. Building fabric and services are explained and how resource requirements for maintenance can be reduced, whilst maintaining the function of the building. Advanced materials and techniques are introduced. Life Cycle Analysis is used to provide a decision tool to assess the sustainability of design. Climate change presents a new challenge to design buildings to be sustainable in the context of projected, but uncertain weather conditions. Future scenarios are investigated to reveal the implications for changing design parameters.

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Rediscovery - Understanding Historic Buildings and Past Environmental T						
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Autumn	M	30 (15)	100% Coursework	
3	Canterbury	Autumn	M	30 (15)	100% Coursework	

Contact Hours

Total contact hours: 45 hours

Private study hours: 255 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 A comprehensive understanding of the history of environmental design in architecture, including the role of the natural sciences and technology in its development.
- 2 A critical understanding of the specific cultural and historical context of environmentally driven innovation today and in the past.
- 3 An in-depth knowledge of the environmental design strategies and technologies used in historic building, including the post-war building stock.
- 4 An ability to use of historical research methods in the study of historic buildings from an environmental perspective.
- 5 An ability to analyse the environmental behaviour of historic structures and the efficiency of past environmental technologies, using modern scientific methods.
- 6 An in-depth knowledge of building science and its application to the analysis of historic structures and environmental technologies.
- 7 A comprehensive understanding of cross-disciplinary and collaborative approaches to the study of historic buildings.

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 A comprehensive understanding of the methods used in historical research, such as the gathering and interpretation of historic material, the reconstruction of events or evolution of a design.
- 2 The ability to analyse scientific and technical data.
- 3 A comprehensive understanding of cross-disciplinary and collaborative ways of working.
- 4 The ability to produce research papers at a publishable standard, reflecting an awareness of the implication of writing for specialist and non-specialist readers.
- 5 The ability to communicate their research through oral and visual (e.g. posters, diagrams, animations) presentations to specialist and non-specialist audiences.
- 6 The ability to conduct project work independently or within a team of research collaborators.

Method of Assessment

Main assessment methods

Research Paper (5,000 words) (100%)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

Banham, Reyner (1969). The Architecture of the Well-Tempered Environment. Chicago: University of Chicago Press.

Brueckmann, Robert. Prowler, Donald. (1977). '19th Century Mechanical System Designs', JAE, Vol. 30, No. 3 (Feb., 1977), pp. 11-15.

Brueggemann, Robert. (1978). 'Central Heating and Forced Ventilation: Origins and Effects on Architectural Design', Journal of the Society of Architectural Historians , Vol. 37, No. 3 (Oct., 1978), pp. 143-160.

Hawkes, Dean. (1996). The Environmental Tradition: studies in the architecture of environment. London: Taylor & Francis.

Popper, Carl (1959). The Logic of Scientific Discovery. London: Hutchinson.

Porteous, Colin. (2002). The new eco-architecture: alternatives from the modern movement. London: Spon Press

Pre-requisites

None

Synopsis *

In this module students will explore the environmental dimension of historic buildings and evaluate past environmental technologies and strategies, through a combination of historical research and technical analysis.

Students research into the historical and cultural context of environmentally driven innovation in architecture, and will explore the specific motivations and historical circumstances that have been driving the development of environmental technologies and scientific principles today and in the past.

Students will conduct a detailed environmental design case study of a historic building or environmental technology, combining historical research and technical analysis. Students have the choice to select from a number of case studies chosen by the module convenor or to study a building of their own choice. Students will conduct a piece of historical research with the aim of gaining a detailed understanding of the original environmental design intentions behind a particular historic building and the environmental technologies and control regimes deployed to achieve these objectives. Although each student will be assessed on individual pieces of work, the students are encouraged to work in cross-disciplinary teams.

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AR829	Monitoring and Modelling of Environmental Performance					
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Spring	M	30 (15)	100% Coursework	

Contact Hours

Total contact hours: 40

Private study hours: 260

Total study hours: 300

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An awareness of the range of techniques appropriate for analysing the environmental performance of the built environment (internal and external environment) and energy performance of buildings.
- 2 A systematic understanding of the capabilities of both physical and digital experimental techniques (monitoring & modelling) for assessing the environmental and energy performance of buildings.
- 3 The ability to independently assess the environmental and comfort conditions in the built environment through both physical and digital experimental techniques (monitoring & modelling), along with the energy consumption of buildings (thermal simulation modelling).
- 4 A critical understanding of the output of the above techniques and the way they can be used for comprehensive analysis of the environmental and energy performance of buildings and subsequent mitigating strategies.

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An understanding of basic research principles and the ability to critically analyse material to form independent conclusions.
- 2 A systematic understanding of the effect of the built environment (microclimate, morphology, materials) on the environmental performance and energy consumption of buildings.

Method of Assessment

Main assessment methods

Case Study Analysis (100%)

Reassessment methods

Like for like.

Preliminary Reading

Indicative Reading List

Baker, N., and Steemers, K. (2000). Daylighting Design: A Handbook for Architects and Engineers. James + James.

BUS Ltd Occupancy Survey: Usable Buildings (free resource) <http://www.usablebuildings.co.uk/>

CIBSE TM22: Energy Assessment and Reporting Methodology

de Dear, R. J. (1998) 'A global database of thermal comfort experiments', ASHRAE Technical Data Bulletin, vol 14, no 1, pp15–26

Guildford J P (1954). Psychometric Methods. McGraw Hill, New York.

Humphreys, M.A. and Nicol, J.F. (2000). The effects of measurement and formulation error on thermal comfort indices in the ASHRAE database of field studies ASHRAE Transactions 106(2) pp 493-502

Humphreys, M.A., Nicol, J.F. and Raja, I.A. (2007). Field studies of indoor thermal comfort and the progress of the adaptive approach. Journal of Advances on Building Energy Research 1, 55-88.

Mardaljevic, J. (2000). Simulation of annual daylighting profiles for internal illuminance. Lighting Research & Technology, 32(3):111–118.

Stevens, S. (1975). Psychophysics: Introduction to its perceptual, neural and social prospects. New York: John Wiley.

Pre-requisites

None

Synopsis *

Students will explore a range of experimental and modelling techniques to evaluate the environmental and energy performance of buildings. This will include field surveys of appropriate case study buildings, where the students will experiment with monitoring the environmental conditions. They will select a range of techniques for the thermal and visual environment.

Subsequent modelling of the building will enable them to further assess the environmental conditions and energy performance of buildings, identifying problem areas with appropriate mitigation techniques.

AR830	Sustainable Design Project					
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Spring	M	30 (15)	80% Project, 20% Coursework	

Contact Hours

Total contact hours: 53 hours
Private study hours: 247 hours
Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.
On successfully completing the module students will be able to demonstrate:

- 1 An ability to analyse the macro and microclimate relevant to a site and produce an appropriate sustainable environment response.
- 2 A systematic understanding of the impact of building orientation, form, massing and vegetation and water features on the internal environment and energy use.
- 3 A good understanding of the differing environmental control requirements for buildings depending on building type and the climate and region in which they are located.
- 4 An ability to use theoretical knowledge and prediction methodologies to create appropriate sustainable design strategies.
- 5 An ability to understand, analyse and reflect upon their design with respect to the internal and external environmental conditions created in a particular climate and location.
- 6 An ability to work in design teams which take into account the approaches and the needs of different professional disciplines.

The intended generic learning outcomes.

On successfully completing the module students will be able to:

- 1 Students shall demonstrate an understanding of advanced research principles, the ability to analyse source materials, and form original hypotheses.
- 2 Students shall demonstrate the ability to produce sophisticated and imaginative solutions to demanding problems.
- 3 Students shall demonstrate the ability to conduct project work independently or within a team of research collaborators.

Method of Assessment

Main assessment methods

Design Proposal and Report (100%)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

- Emmanuel, M. R. (ed.) (2016) Urban climate challenges in the tropics: rethinking planning and design opportunities. London: Imperial College Press.
- Guzowski, M. (2010) Towards zero-energy architecture: new solar design. London: L. King.
- Hindrichs, Dirk U and Daniels, Klaus (eds.) (2007) Plus minus 20°/40° latitude: subtropical building design in tropical and sub tropical regions. Basel: Birkhauser.
- Hyde, R. (2000). Climate responsive design: a study of buildings in moderate and hot humid climates. Taylor & Francis.
- Keeler, M. and Vaidya, P. (2016) Fundamentals of integrated design for sustainable building. Second edition. Hoboken, New Jersey: Wiley
- Kwok, A and Grondzik, PE. (2011) (2nd ed). The green studio handbook: environmental strategies for schematic design. Oxford: Architectural Press.
- Latham, I. and Swenarton, M (eds.). (2007) Feilden Clegg Bradley: the environmental handbook. The Right Angle.
- Lechner, N. (2008) (3rd Ed). Heating cooling and lighting – sustainable design methods for architects. Wiley.
- O'Cofaigh, Eoin. (1996) (Energy Research Group, University College Dublin.) The climatic dwelling: an introduction to climate responsive residential architecture. James and James.
- Rassia, S.T. and Pardalos, P.M (eds). (2012) Sustainable Environmental Design in Architecture: Impacts on Health. New York: Springer New York
- Scott, A. (1998) Dimensions of sustainability: architecture form, technology, environment, culture. Abingdon: E & FN Spon

Pre-requisites

None

Synopsis *

In the context of climate change, the significance of sustainable design is of many fold. Ideally, to achieve sustainable design one should be able to trace the environmental impact from geography to individual space and vice versa. However, to make a meaningful and workable sustainable design, the designer should at least address the environmental changes that take place at human scale ($\approx 1\text{m}$) to city block scale ($\approx 1\text{km}$). This primarily involves knowledge in disciplines such as urban climatology, urban design/planning, architecture and engineering in order to address environmental issues related to layout, form, structure/construction and environmental performance. In this module, students will acquire basic knowledge related to above-mentioned disciplines and develop a sustainable design proposal incorporating suitable passive/low carbon technologies that are applicable to the context.

Advanced techniques and methodologies for analysis of local climatic conditions, site, and building proposals lead to the development of environmentally sustainable design proposals with a focus on achieving low energy buildings.

The influence of materials, form and construction on environmental performance and waste management will be examined with reference to sustainable design principles, benchmarks and precedents.

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AR831		Urban Landscape				Convenor
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	
2	Canterbury	Autumn	M	30 (15)	100% Coursework	

Contact Hours

Total contact hours: 32 hours

Private study hours: 268 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to work as part of a team (ARB DESIGN)
- 2 An understanding of the influences on the contemporary built environment of individual buildings, the design of cities, past and present societies and wider global issues.
(ARB C/C).
- 3 An understanding of the histories and theories of architecture and urban design, the history of ideas, and the related disciplines of art, cultural studies and landscape studies and its application in critical debate (ARB C/C).
- 4 An ability to critically appraise and form considered judgements about spatial, aesthetic, technical and the social qualities of a design within the scope and scale of a wider environment (ARB C/C).

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to apply project related research and analysis to the ideas, development and quality of the design project.
- 2 An ability to communicate effectively and well, using a range of communication skills.

Method of Assessment

Main assessment methods

Design Project (100%)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

Breheny M. (1992). Sustainable Development and Urban Form, Pion.

Brown S.A. (2001). Communication in the Design Process, Spon Press.

Coupland, A. (Ed). (1997). Reclaiming the City: Mixed Use Development, E & FN Spon.

Harris S & Berke D (eds). (1997). Architecture of the Everyday, Princeton UP.

Herzog, T. (Ed). (1996). Solar Energy in Architecture and Urban Planning. Prestel Verlag.

Hughes, J & Sadler, S (eds). (2000). Non-Plan. Architectural Press Oxford.

Moughtin J.C. (1996) Urban Design: Green Dimensions. Butterworth Architecture.

MVRDV. (1999). Farmax 010.

New practice in urban design AD Profiles 105

Nijkamp & Perrels. (1990). Sustainable Cities in Europe, MIT.

Roberts P. & Sykes H. (ed.s). (2000). Urban Regeneration: a Handbook. Sage

Rogers R. (1997). Cities for a Small Planet, Faber & Faber.

Ward, C. & Hall P. (1999). Sociable cities. John Wiley & Sons.

Local District Plan of the area where the site is located. Publications by national strategic design bodies such as CABE, depending on project programme

Pre-requisites

None

Synopsis *

This Module project explores broad scale issues of site and context, planning and place making. Students become familiar with relevant planning documents and learn to work as part of a team in developing design strategies and making planning proposals. Precedent studies play an important role in shaping strategic and tactical development. Communication skills are enhanced through classes including computing, and project presentations.

Urban Landscape is adapted from year to year to engage with a range of issues concerning urban landscapes and architecture and may explore topical sites within the region.

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AR832		Research Methods and Analysis				
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Autumn	M	30 (15)	100% Coursework	

Contact Hours

Total contact hours: 36 hours

Private study hours: 264 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to prepare and manage well-supported and critical analyses (written and oral) based on theory and empirical evidence covering a range of issues in relation to
culture, theory and urban design.
- 2 An ability to formulate viable, original and well-supported proposals and advice aimed at dealing with the complexity of urban design situations
- 3 Advanced negotiation skills and professional attitude in dealing with stakeholders
- 4 Research skills including the formulation of a conceptual framework and use of a range of information sources
- 5 Excellent graphic and presentation skills to be applied to the submission of written reports

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to prepare and manage well-supported and critical analyses (written, visual and oral) based on theory and empirical evidence
- 2 An ability to reflect critically on own ideas by becoming more open and acquainted with unfamiliar ideas and practices
- 3 An ability to work effectively in a multi-disciplinary, multi-cultural environment
- 4 An ability to negotiate and work as part of a team
- 5 An ability to systematically plan, carry through and manage a project programme in a given time
- 6 An ability to be self-critical about own work and constructive in how to address and progress it

Method of Assessment

Main assessment methods

4000 Word Illustrated Essay (100%)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

Swetnam, D. (2000). Writing Your Dissertation: A guide to Planning, Preparing and Presenting First Class Work. Oxford: How To Books.

Pre-requisites

None

Synopsis *

Students are introduced to the intellectual conditions under which the research in architecture and cities (urban design) is undertaken. They are given guidance that equips them with skills to formulate their dissertation and find the way around the increasingly diverse fields of knowledge. The module enhances the ability to formulate questions, communicate arguments and results. Students will be encouraged to exercise critical attitude and formulate new proposals. Students gain experience both by presenting their own research and in providing constructive criticism on the work of their peers. The sessions confer how to present arguments, use visual resources, think through and reflect, conduct interviews and improve presentation skills.

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AR836		Design 4A				Convenor
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	
2	Canterbury	Autumn	M	30 (15)	100% Project with Compulsory Numeric Elements	

Contact Hours

Total contact hours: 45 hours

Private study hours: 255 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to 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.
- 2 Knowledge of theories of urban design and the planning of communities.
- 3 Knowledge of the influence of the design and development of cities, past and present on the contemporary built environment.
- 4 Knowledge of current planning policy and development control legislation, including social, environmental and economic aspects, and the relevance of these to design development.
- 5 Understanding of the needs and aspirations of building users.
- 6 Understanding of the impact of buildings on the environment, and the precepts of sustainable design.
- 7 Understanding of the way in which buildings fit into their local context
- 8 Understanding of the potential impact of buildings on existing and proposed communities
- 9 An ability to generate complex design proposals showing understanding of current architectural issues, originality in the application of subject knowledge and, where appropriate, to test new hypotheses and speculations.

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to evaluate and apply a comprehensive range of visual, oral and written media to test, analyse, critically appraise and explain design proposals.
- 2 Problem solving skills, professional judgment, and ability to take the initiative and make appropriate decisions in complex and unpredictable circumstances.
- 3 An ability to apply project related in-depth research and analysis to the ideas, development and quality of the design project.
- 4 An ability to communicate effectively and well, using a range of communication skills

Method of Assessment

Main assessment methods

Design Project (100%)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

- Bourquin, Nicolas (ed.). (2008). Data Flow: Visualising Information in Graphic Design. Gestalten
 Crawford, Matthew. (2010). The Case for Working with Your Hands: or Why Office Work is Bad for Us and Fixing Things Feels Good. Viking
 Hale, Jonathan. (2000). Building Ideas: an Introduction to Architectural Theory. Wiley
 Jencks, Charles (ed.). (2005). Theories and Manifestoes of Contemporary Architecture. John Wiley & Sons
 Lim, C.J. (2006). Devices: A Manual of Architectural and Spatial Machines. Architectural Press
 Marcus, George. (2005). Masters of Modernism: A Critical Assessment. Monacelli
 Sennett, Richard. (2009). The Craftsman. Penguin
 Sheil, Bob (ed.). (2005). Design through Making. John Wiley & Sons

Pre-requisites

None

Synopsis *

This module involves a consideration of design at an urban scale and is taught through a Unit system with individual Unit briefs interpreting this specification. Each Unit brief will offer the opportunity to analyse and critically appraise new hypotheses through the speculation of complex design proposals, and consider context in terms of history, policy, legislation, environment, economics and community. Unit briefs for this module may develop themes in parallel with Design 5a, with which it is co-taught in Units, and may continue these themes into the following term's design module(s).

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AR837		Design 4B				
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Spring	M	30 (15)	100% Project with Compulsory Numeric Elements	

Contact Hours

Total contact hours: 45 hours

Private study hours: 255 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to 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.
- 2 An ability to 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.
- 3 Knowledge of the creative application of appropriate theoretical concepts to studio design projects, in terms of their conceptualisation and representation.
- 4 Knowledge of the creative application of the fine arts and their relevance and impact on architecture.
- 5 Knowledge of the creative application of fine arts to studio design projects, in terms of conceptualisation and representation.
- 6 Understanding of the role of the architect within the design team and the construction industry, recognising the importance of current methods and trends on the construction of the built environment.
- 7 An ability to evaluate materials, processes and techniques that apply to complex architectural designs and building construction, and to integrate these into practicable design proposals.
- 8 An ability to identify individual learning needs and understand the personal responsibility required to prepare for qualification as an architect.

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to generate complex design proposals showing understanding of current architectural issues, originality in the application of subject knowledge and, where appropriate, to test new hypotheses and speculations
- 2 An ability to evaluate and apply a comprehensive range of visual, oral and written media to test, analyse, critically appraise and explain design proposals
- 3 An ability to apply project related in-depth research and analysis to the ideas, development and quality of the design project.
- 4 An ability to communicate effectively and well, using a range of communication skills

Method of Assessment

Main assessment methods

Design Project (100%)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

- Bourquin, Nicolas (ed.). (2008). Data Flow: Visualising Information in Graphic Design. Gestalten
- Crawford, Matthew. (2010). The Case for Working with Your Hands: or Why Office Work is Bad for Us and Fixing Things Feels Good. Viking
- Hale, Jonathan. (2000). Building Ideas: an Introduction to Architectural Theory. Wiley
- Jencks, Charles (ed.). (2005). Theories and Manifestoes of Contemporary Architecture. John Wiley & Sons
- Lim, C.J. (2006). Devices: A Manual of Architectural and Spatial Machines. Architectural Press
- Marcus, George. (2005). Masters of Modernism: A Critical Assessment. Monacelli
- Sennett, Richard. (2009). The Craftsman. Penguin
- Sheil, Bob (ed.). (2005). Design through Making. John Wiley & Sons

Pre-requisites

None

Synopsis *

This module involves the design of a singular or multiple architectural propositions, and is taught through a Unit system with individual Unit briefs interpreting this specification. Each Unit brief will offer the opportunity to develop a conceptual and critical approach to complex architectural design proposals that is developed into a comprehensive and integrated design project. Unit briefs for this module may develop themes in parallel with Design 5b, with which it is co-taught in Units, and may continue these themes from the preceding term's design module.

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AR838		Design 5a				
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Autumn	M	30 (15)	100% Project with Compulsory Numeric Elements	

Contact Hours

Total contact hours: 45 hours

Private study hours: 255 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to 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.
- 2 Knowledge of theories of urban design and the planning of communities.
- 3 Knowledge of the influence of the design and development of cities, past and present on the contemporary built environment.
- 4 Knowledge of current planning policy and development control legislation, including social, environmental and economic aspects, and the relevance of these to design development.
- 5 Understanding of the needs and aspirations of building users.
- 6 Understanding of the impact of buildings on the environment, and the precepts of sustainable design.
- 7 Understanding of the way in which buildings fit into their local context
- 8 Understanding of the potential impact of buildings on existing and proposed communities
- 9 An ability to generate complex design proposals showing understanding of current architectural issues, originality in the application of subject knowledge and, where appropriate, to test new hypotheses and speculations.

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to evaluate and apply a comprehensive range of visual, oral and written media to test, analyse, critically appraise and explain design proposals.
- 2 Problem solving skills, professional judgment, and ability to take the initiative and make appropriate decisions in complex and unpredictable circumstances.
- 3 An ability to apply project related in-depth research and analysis to the ideas, development and quality of the design project.
- 4 An ability to communicate effectively and well, using a range of communication skills

Method of Assessment

Main assessment methods

Design Project (100%)

Reassessment methods

Like for like.

Preliminary Reading

Indicative Reading List

- Bourquin, Nicolas (ed.). (2008). Data Flow: Visualising Information in Graphic Design. Gestalten
- Crawford, Matthew. (2010). The Case for Working with Your Hands: or Why Office Work is Bad for Us and Fixing Things Feels Good. Viking
- Hale, Jonathan. (2000). Building Ideas: an Introduction to Architectural Theory. Wiley
- Jencks, Charles (ed.). (2005). Theories and Manifestoes of Contemporary Architecture. John Wiley & Sons
- Lim, C.J. (2006). Devices: A Manual of Architectural and Spatial Machines. Architectural Press
- Marcus, George. (2005). Masters of Modernism: A Critical Assessment. Monacelli
- Sennett, Richard. (2009). The Craftsman. Penguin
- Sheil, Bob (ed.). (2005). Design through Making. John Wiley & Sons

Pre-requisites

None

Synopsis *

This module involves a consideration of design at an urban scale and is taught through a Unit system with individual Unit briefs interpreting this specification. Each Unit brief will offer the opportunity to analyse and critically appraise new hypotheses through the speculation of complex design proposals, and consider context in terms of history, policy, legislation, environment, economics and community. Unit briefs for this module may develop themes in parallel with Design 4a, with which it is co-taught in Units, and may continue themes into the following term's design module(s).

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AR839	Design 5B					
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Spring	M	30 (15)	100% Project with Compulsory Numeric Elements	

Contact Hours

Total contact hours: 45 hours

Private study hours: 255 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to 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.
- 2 An ability to 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.
- 3 Knowledge of the creative application of appropriate theoretical concepts to studio design projects, in terms of their conceptualisation and representation.
- 4 Knowledge of the creative application of the fine arts and their relevance and impact on architecture.
- 5 Knowledge of the creative application of fine arts to studio design projects, in terms of conceptualisation and representation.
- 6 Understanding of the role of the architect within the design team and the construction industry, recognising the importance of current methods and trends on the construction of the built environment.
- 7 An ability to evaluate materials, processes and techniques that apply to complex architectural designs and building construction, and to integrate these into practicable design proposals.
- 8 An ability to identify individual learning needs and understand the personal responsibility required to prepare for qualification as an architect.

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to generate complex design proposals showing understanding of current architectural issues, originality in the application of subject knowledge and, where appropriate, to test new hypotheses and speculations
- 2 An ability to evaluate and apply a comprehensive range of visual, oral and written media to test, analyse, critically appraise and explain design proposals
- 3 An ability to apply project related in-depth research and analysis to the ideas, development and quality of the design project.
- 4 An ability to communicate effectively and well, using a range of communication skills

Method of Assessment

Main assessment methods

Design Project (100%)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

- Bourquin, Nicolas (ed.). (2008). Data Flow: Visualising Information in Graphic Design. Gestalten
 Crawford, Matthew. (2010). The Case for Working with Your Hands: or Why Office Work is Bad for Us and Fixing Things Feels Good. Viking
 Hale, Jonathan. (2000). Building Ideas: an Introduction to Architectural Theory. Wiley
 Jencks, Charles (ed.). (2005). Theories and Manifestoes of Contemporary Architecture. John Wiley & Sons
 Lim, C.J. (2006). Devices: A Manual of Architectural and Spatial Machines. Architectural Press
 Marcus, George. (2005). Masters of Modernism: A Critical Assessment. Monacelli
 Sennett, Richard. (2009). The Craftsman. Penguin
 Sheil, Bob (ed.). (2005). Design through Making. John Wiley & Sons

Pre-requisites

None

Synopsis *

This module involves the design of a singular or multiple architectural propositions, and is taught through a Unit system with individual Unit briefs interpreting this specification. Each Unit brief will offer the opportunity to develop a conceptual and critical approach to complex architectural design proposals that is developed into a comprehensive and integrated design project. Unit briefs for this module may develop themes in parallel with Design 4b, with which it is co-taught in Units, and may continue themes from the preceding term's design module(s).

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AR840 MArch Term Abroad						
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Spring	M	60 (30)	100% Project with Compulsory Numeric Elements	
2	Canterbury	Autumn	M	60 (30)	100% Project with Compulsory Numeric Elements	
2	Canterbury	Autumn	M	60 (30)	100% Project	
2	Canterbury	Spring	M	60 (30)	Pass/Fail Only	
2	Canterbury	Autumn	M	60 (30)	Pass/Fail Only	

Learning Outcomes

The intended subject specific learning outcomes.

- 1 To acquire a broader, international and interculturally informed understanding of architecture
- 2 To experience different cultural approaches to learning, study of architecture and academic development
- 3 To acquire intercultural competence, cross-cultural literacy, and to practice foreign-language skills as applicable if non-English speaking/teaching partner institutes.

The intended generic learning outcomes.

- 1 Enhanced, interculturally sensitive communication and interpersonal skills
- 2 Enhanced ability for self-management, flexibility, focus and project management

Method of Assessment

Main assessment methods

The Term Abroad contributes and is assessed in line with UoK Conventions for Classifications of Awards Guidance for Examiners: Classification of Awards.

<http://www.kent.ac.uk/teaching/qa/credit-framework/guide-examiners.html>

For students taking a term aboard in Stage 4 the placement will be graded on a pass/fail basis as documented by the transcript from the host institution and will therefore be zero-weighted with respect to classification. Modules totally at least 60 credits (30ECTS or 600 hours) must be undertaken.

Students taking a term aboard in Stage 5 will be required to submit a portfolio of work undertaken during the placement to be marked by Kent staff on their return under the MArch 'Term Abroad' module specification. The mark achieved will be recorded and will carry such weighting towards classification as has been approved by the relevant Faculty Board.

All students are required to submit a written report on their study abroad.

Reassessment methods

If a student is unsuccessful at the first attempt and no retrieval mechanism is available at the host institute for a second attempt in the same academic year, the student may be instructed to submit a portfolio of all the academic work undertaken abroad to be marked at Kent by Kent staff on a 'Pass/Fail' basis for consideration at the next KSA Examination Board. This is to ensure that students studying abroad have the same opportunities for retrieval and Stage progression as the rest of their academic cohort.

Preliminary Reading

Indicative Reading List

- Hejduk, John (Ed). (1988). Education of an Architect: Irwin S.Chanin School of Architecture of the Cooper Union. Rizzoli International Publications
 Lawson, Bryan. (2005). How Designers Think. Architectural Press
 Rasmussen, Steen Eiler. (1962). Experiencing Architecture. Cambridge, Mass: MIT
 Sheil, Bob (Ed). (2005). Design through Making. John Wiley & Sons
 Unwin, Simon. (2008). Analysing Architecture. Routledge

The International Study service in the University's International Development Office provides information about host countries and host universities. Students will receive course-specific information, incl. reading lists, on their enrolment at the host university.

Pre-requisites

None

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Synopsis *

Study Abroad - the MArch curriculum allows for the opportunity for students to seek study abroad opportunities in either the spring term of Stage 4 or autumn term of Stage 5. Whether through the Erasmus system (spring term Stage 4) or individual UoK Study Abroad partner institutes (spring term Stage 4, or autumn term Stage 5 - provided host-institute's autumn term or semester concludes before the commencement of the following UoK spring term), an architecture study abroad committee will make selections and recommendations for study abroad based on the merit of the applicant following submission of an application supported by a portfolio and transcripts.

During the placement students will be enrolled on this dedicated MArch Term Abroad module.

Spending a term as full-time student at an overseas university, students will follow teaching and tuition in architecture. The curriculum will vary according to the partner institutions. Additionally, students will usually be offered to take language classes and/or courses on the culture of the host country.

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AR841 Structural Appraisal of Historic Buildings						
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Spring	M	30 (15)	100% Coursework with Compulsory Numeric Elements	

Contact Hours

Total contact hours: 36 hours

Private study hours: 264 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 A systematic understanding of construction components in historical buildings and their structural behaviour.
- 2 An understanding of the causes of decay, and repair of historic buildings.
- 3 An enhancing of the ability to assess and monitor the condition of buildings, and make proposals for their repair, maintenance, and enhancement.
- 4 Provision of graphic presentation skills employed in structural appraisal and the development of conservation strategies.

The intended generic learning outcomes.

On successfully completing the module students will be able to:

- 1 Ability to critically apply theories, research and analysis in order to understand the structural behaviour of a building.
- 2 Ability to investigate and identify the extent and the cause of construction materials' decay, by analysing a wide range of historical documentation and interpreting data from laboratories.
- 3 Ability to develop a structural intervention strategy using appropriate presentation and communication skills.

Method of Assessment

Main assessment methods

Structural Report (100%)

Reassessment methods

Like for like.

Preliminary Reading

Indicative Reading List

- Ashurst, J. & N. (1988). Practical Building Conservation (Vols. 1-5). English Heritage Technical Handbooks.
- Ayres, James. (1998). Building the Georgian City. Yale
- Beckmann, Paul. (1995). Structural Aspects of Building Conservation. McGraw Hill.
- Carbonara, Giovanni. (2005). Atlante del restauro. UTET, ISBN: 9788802061207
- Croci, G. (1998). The Conservation and Structural Restoration of Architectural Heritage. Southampton: Computational Mechanics.
- Forsyth, Michael. (2007). Structures and Construction in Historic Building Conservation: Structures and Construction. Wiley-Blackwell: ISBN-13: 978-1405111713
- Gordon, J. E. (1991). Structures: or why things don't fall down. Penguin.
- Heyman, Jacques. (1997). The Stone Skeleton: Structural Engineering of Masonry Architecture. Cambridge University Press: ISBN13: 9780521629638
- Mainstone, R. (1975). Developments in Structural Form. Allen Lane.
- Robson, R. (1991). Structural Appraisal of Historic Buildings. Gower.
- Theodosopoulos, Dimitris. (2012). Structural Design in Building Conservation, Taylor & Francis Ltd Routledge ISBN-13: 978-0415479462

Pre-requisites

None

Synopsis *

This module explores the structural behaviour of buildings, and examines their response to environmental phenomena. It helps the students to analyse the causes and patterns of damage in a wide range of structures and cultivates a critical understanding of the techniques employed in the repair and strengthening of historic buildings. A combination of lectures and laboratory analysis will help the students to develop an advanced understanding of the properties of building materials and their decay. The module will include lectures on materials such as stone, brick, mortar, timber, iron and concrete. Three of these lectures will be delivered by the conservators of Canterbury cathedral at the Cathedral's conservation workshop. This will constitute an opportunity to observe the methods employed in the conservation of Canterbury cathedral, examining the practical application of a wide range of preservation techniques. The course's assignment, a structural report on a historic structure in Kent will provide students with an opportunity to test the skills and knowledge gained in the lectures, articulating their findings using the relevant presentation skills.

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AR842 The Legislative Framework						
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Autumn	M	30 (15)	100% Coursework with Compulsory Numeric Elements	

Contact Hours

Total contact hours: 30 hours

Private study hours: 270 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 A systematic understanding of historical approaches in Europe, and especially Britain, to the significance of the conservation of buildings.
- 2 An understanding of the national and international statutory frameworks for enacting, funding and maintaining building conservation.
- 3 An understanding of the concept of historic environments.
- 4 Practical experience in the reading and writing of Heritage Statements.
- 5 An understanding of the administration and procurement strategies for conservation projects.
- 6 An understanding of current funding mechanisms and the generation of investment in the historic environment through private sponsorship and grant scheme administration.
- 7 An understanding of the socio-economic impact of historic site regeneration.

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to critically apply theories, research and analysis to the ideas, development and quality of projects.
- 2 An ability to communicate effectively, using a range of communication skills.
- 3 An ability to comprehensively understand the nature of differing types of documentation used in planning and analysis.

Method of Assessment

Main assessment methods

Heritage Statement 4000 words (100%)

Reassessment methods

Like for like.

Preliminary Reading

Indicative Reading List

- Crawford, Alan. (2005). C.R. Ashbee. London & New Haven: Yale UP.
 Cullingworth B, and Nadin, V. (2006). Town and Country Planning in the UK. Abingdon: Routledge.
 Forshaw, J.H., and Abercrombie, P. (1943). County of London Plan, London (LCC).
 Howard, Ebenezer (Hall, Peter, ed.). (2003). To-Morrow: A Peaceful Path to Real Reform. Abingdon: Routledge.
 McCarthy, Fiona. (2010). William Morris: A life for our time. London: Faber & Faber.
 Mynors, C. (1998). Listed Buildings, Conservation Areas and Monuments. London: Sweet and Maxwell.
 Ruskin, John. (1849) The Seven Lamps of Architecture. London
 Thurley, Simon. (2013). Men from the Ministry. London & New Haven: Yale UP.
 Walker, R. (1995). The Cambridgeshire Guide to Historic Building Law. Cambridge: Cambridge City Council.

Pre-requisites

None

Synopsis *

This module explores the policies and legislation that guide the preservation of historic sites, and the modern administrative framework of conservation. Focusing on the UK heritage protection and planning systems, the module's lectures and seminars will examine various kinds of statutory designation. The aim is to provide a thorough examination of the notions of the listed building, the scheduled archaeological site, the conservation area and the registered landscape. Particular emphasis will be put on the role of conservation in the National Planning Policy Framework and on the mechanisms through which the development of historic sites is authorised. This will involve an investigation of the challenges associated with planning permissions, and listed building consent. The module will offer the opportunity to explore the systems through which conservation is financed and managed. Guest speakers will introduce the students to the available grants that assist building conservation and area regeneration. The module will also familiarise the students with procurement strategies, as well as with conservation contracts, methods of valuation, and cost planning.

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AR843		Intervention at Historic Buildings				
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Spring	M	30 (15)	100% Coursework	
2	Canterbury	Spring	M	30 (15)	100% Coursework with Compulsory Numeric Elements	

Contact Hours

Total contact hours: 30 hours

Private study hours: 270 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 Expertise in the design of conservation-oriented interventions to historic buildings.
- 2 An ability to use conservation statements and plans as a basis for conservation strategies.
- 3 Familiarity with the methods employed in the survey of historic buildings and sites.
- 4 An ability to manage a design proposal and to formulate design briefs.
- 5 An ability to work in many different scales and conditions, ranging from building interiors to building complexes and from urban areas to landscapes and gardens.

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to guide and manage change to historic buildings.
- 2 An understanding of the entire process of conservation projects, including survey, conservation statement, establishment of conservation strategy, formulation of briefs, design development, procurement and implementation.
- 3 An awareness of the impact of conservation principles on the way in which historic buildings are preserved, reconstructed, or adapted to new uses.
- 4 An inclusive, broad view of the urban environment and an understanding of historic buildings as integral parts of an urban setting.
- 5 An ability to integrate conservation attitudes with contemporary economic and social goals.

Method of Assessment

Main assessment methods

Conservation Plan (25%)
Conservation Project (75%)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

- Cantacuzino, S. (1975). *New Uses for Old Buildings*. London
 Charles, F.W.B. (1995). *Conservation of Timber Buildings*. Shaftesbury: Donhead
 Croci, G. (1998). *The Conservation and Structural Restoration of Architectural Heritage*. Southampton: Computational Mechanics Publications.
 Feilden, B.M. (2003). *Conservation of Historic Buildings*. Butterworth
 ICOMOS. (1990). *Guide to Recording Historic Buildings*. Butterworth.
 Krier, L. (1998). *Architecture, Choice or Fate*. London: Papadakis Publisher.
 Larkham, P.J. (1996) *Conservation and the City*. London: Routledge.
 Roberts, P. & Sykes, H. (1999). *Urban Regeneration*. Sage Publications.
 Watt, D. & Swallow, P. (1996). *Surveying Historic Buildings*. Shaftesbury: Donhead.

Pre-requisites

None.

Synopsis *

This module explores the various methods of promoting beneficial change to historic buildings. A conservation project that will be supervised on a weekly basis offers the opportunity to design an intervention to a historic site. The project will not only focus on one historic building but it will offer the opportunity to investigate the role of conservation in the broader urban environment. In parallel to this project, a series of lectures will investigate various stages in the delivery of conservation projects, examining the methods of survey, appraisal, repair, strengthening, adaption, extension, and monitoring of historic buildings and surrounding urban spaces. One of these lectures will be delivered at Canterbury Cathedral, and will give students the opportunity to observe the ongoing conservation of the monument guided by one of its chief conservators. During the course, special emphasis will be put on issues related with the preservation and management of historic cities. Encouraging the students to experiment with all the phases of a conservation project, this module provides a synthesis of theory and practice, and promotes the development of a holistic approach to architectural conservation.

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AR844		Conservation Principles				
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Autumn	M	30 (15)	100% Coursework	
2	Canterbury	Autumn	M	30 (15)	100% Coursework with Compulsory Numeric Elements	

Contact Hours

Total contact hours: 30 hours

Private study hours: 270 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An understanding of the knowledge required to analyse historic monuments in Europe, especially Britain, and of the significance of the conservation of buildings.
- 2 An understanding of attitudes towards architectural heritage and their historical development.
- 3 An understanding of the current overarching philosophical framework of conservation.
- 4 An understanding of the concept of historical environments.
- 5 An understanding of the various approaches to the documentation and monitoring of historic buildings.
- 6 An understanding of different research methodologies for the study of the development of architectural forms, with an emphasis on European architecture.

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 Ability to critically apply theories, research and analysis to the ideas, development and quality of projects.
- 2 Ability to communicate effectively, using a range of communication skills.
- 3 Ability to comprehensively understand the nature of differing types of documentation used in planning and analysis.

Method of Assessment

Main assessment methods

Essay 4,000 words (80%)

Site Documentation Study (20%)

Reassessment methods

Like for like.

Preliminary Reading

Indicative Reading List

- Brandi, C., Basile, G. (2005). Theory of Restoration, Rome: Istituto Centrale per il Restauro
 Curtis, William J.R. (2006, 3rd ed.) Modern Architecture since 1900. London: Phaidon Press Ltd.
 Earl, J., Saint, A. (2003) Building Conservation Philosophy, London: Taylor & Francis
 Fazio, M., Moffett, M., Wodehouse, L. (1st ed. 2003; 2nd ed. 2008). A World History of Architecture. London: Laurence King

Jokilehto J. (2002). A History of Architectural Conservation. London: Routledge

Lowenthal, D. (1998). The Heritage Crusade and the Spoils of History. Cambridge: Cambridge University Press 1998

Tyler, N. (2000) Historic Preservation: An Introduction to Its History, Principles, and Practice. W. W. Norton.

Watkin, D. (2011, 5th ed. – earlier eds. will be fine). A History of Western Architecture. London: Laurence King

Pre-requisites

None

Synopsis *

This module introduces the students to the research in architectural history and to the study of conservation philosophy that underpins past and present attitudes to architectural heritage.

The introductory lectures will provide an opportunity to investigate the development of architectural form from Antiquity to the 20th century, focusing on the European traditions. They will also introduce the students to the various approaches to the research and documentation of historic buildings. Cultivating a multifaceted understanding of architectural heritage while offering access to the relevant research methodologies, the module provides the expertise necessary to evaluate historic buildings and to decide what should and could be conserved and why. As well as an introduction to architectural history, lectures and seminars will investigate the field of conservation philosophy. This part of the module will examine the evolution of the attitudes to architectural heritage from the 19th to the 21st century. Special emphasis will be put on the theoretical problems of maintenance, restoration, and the way in which 20th-century international charters addressed these problems. Examining a wide range of case-studies, the module will also investigate various theoretical approaches to the adaptation of new buildings to the historic environment.

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AR845		Independent Research Project				
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Spring	M	60 (30)	100% Project	

Contact Hours

Total contact hours: 20 hours

Private study hours: 580 hours

Total study hours: 600 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to demonstrate an advanced understanding of the field of architectural visualisation, and the ways in which theory informs current practice
- 2 An ability to carry out bibliographical and archival research to establish the cultural and professional context of architectural visualisation
- 3 The ability to experiment with the use of a wide range of creative methods and to demonstrate an advanced understanding of their application
- 4 An understanding of the complete process of project creation, from the initial analysis and development of a brief to the actual design.

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 The ability to work as part of an interdisciplinary team, to share tasks equitably and to communicate with different specialists
- 2 The ability to carry out independent research, establishing research objectives, constructing valid research hypotheses and expressing reasoned arguments, grounded by critical reference to carefully identified existing scholarship
- 3 The ability to express research results in an efficient, legible way, through the development of advanced presentation skills

Method of Assessment

Main assessment methods

Independent Research Project (100%)

Reassessment methods

Like for like.

Preliminary Reading

Indicative Reading List

Biggam, J. (2011). Succeeding with your master's dissertation: a step-by-step handbook. Maidenhead: Open University Press (available as an e-book)

Borden, I. (2006). The dissertation an architecture student's handbook. Amsterdam: Architectural.

Swetnam, D. (2004). Writing your dissertation: how to plan, prepare and present successful work. Oxford: How To Books.

Pre-requisites

All previous programme modules

Synopsis *

Students develop their communication and research skills to a high professional standard in an academic or industrial setting. Students elect to produce a theoretical, interdisciplinary or practice-based response in a topic related to the field of study. Working with an assigned tutor, students develop a research proposal, incorporating a methodology and schedule for the work. Students are expected to develop their ability to gather and synthesize data, as well as to analyse it in a coherent and convincing manner. In addition, they are expected to situate their own investigation in the broader context of architecture. Interdisciplinary investigations that further inform architectural thinking are encouraged.

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AR846 Architectural Photography						
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Autumn	M	15 (7.5)	75% Project, 25% Coursework	
2	Canterbury	Autumn	M	15 (7.5)	100% Coursework	

Contact Hours

Total contact hours: 33 hours

Private study hours: 117 hours

Total study hours: 150 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 A comprehensive knowledge and understanding of light, exposure and colour , and their application in architectural lighting
- 2 An advanced understanding of theories of photographic composition, balance and weight
- 3 A knowledge of the history of architectural photography, with an awareness of the contextual boundaries within, and outside of, the genre.
- 4 An advanced ability to use film and digital cameras to capture and create outstanding photographs of architecture, form and space
- 5 A comprehensive knowledge and understanding of digital photographic image manipulation and processing techniques using industry standard software programmes
- 6 An understanding of analogue image processing techniques and their application in a digital industry

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to present, edit and curate a collection of work
- 2 An ability to work self-directed, meeting deadlines
- 3 An ability to critically place their own work in the context of genre, style and precedent.

Method of Assessment

Main assessment methods

Exhibition/Portfolio (75%)

Report (25%)

Reassessment methods

Like for like.

Preliminary Reading

Indicative Reading List

Kerr, N (1979). Technique of photographic lighting. Garden City, N.Y: Amphoto.

Langford, M. (1981). The darkroom handbook. London: Ebury Press.

Lowe, J. (2006). Architectural photography: Inside and Out. Lewes. East Sussex: Photographers' Institute Press/PIP.

Schulz, A. (2012). Architectural photography. Santa Barbara, CA: Rocky Nook.

Pre-requisites

None

Synopsis *

The study of photography is often a complementary element of architectural education. Understanding of the processes of composition, framing and lighting is essential in both disciplines. Through a series of lectures and workshops students will comprehend these concepts, as well as fundamental principles of photographic creation and processing, enabling them to apply these skills and principles to the communication of architectural space and form through photography.

AR847 Urban Design Project						
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
1	Paris	Spring	M	30 (15)	100% Coursework	
1	Canterbury	Spring	M	30 (15)	100% Coursework	

Contact Hours

Total contact hours: 32 hours

Private study hours: 268 hours

Total study hours: 300 hours

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Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to:

- 1 Acquire a conceptual understanding of urban planning in order to develop strategies and /or sound urban design proposals for new architecture and urban areas and the improvement of existing ones, in ways that are socially and culturally agreeable, economically viable and environmentally sustainable.
- 2 Independently define and appraise ideas in architecture and urban design and form considered judgements about spatial, aesthetic, technical and social qualities of an urban context within the scope and scale of a wider environment.
- 3 Question and evaluate critically past and current design methods and tools.
- 4 Refer to and analyse case studies competently.
- 5 Speculate and apply relevant research to the proposed design ideas, development and tasks.
- 6 Develop strategic proposals / masterplans that deal with the built environment in a culturally sensitive, socially just, and environmentally and economically sustainable manner.
- 7 Use visual, verbal and written communication and appropriate media (including sketching, digital and audiovisual) to present critical appraisal and analysis of design proposals to professional and general audiences.
- 8 Formulate viable, original and well-supported design proposals and advice aimed at dealing with the complexity of urban context.
- 9 Acquire advanced negotiation skills and professional attitude in dealing with stakeholders.
- 10 Acquire research skills including formulation of a conceptual framework and use of a range of information sources.
- 11 Develop excellent graphic and other visual presentation skills to be applied to the design projects of the submission of written reports.
- 12 Develop skills of understanding how big cities work and develop.

The intended generic learning outcomes.

On successfully completing the module students will be able to:

- 1 Prepare and manage well-supported critical analyses (written, visual and oral) based on theory and empirical evidence.
- 2 Challenge conventional wisdom and provide advice.
- 3 Reflect critically on own ideas by becoming more open and acquainted with unfamiliar ideas and practices.
- 4 Work effectively in a multi-disciplinary, multi-cultural environment.
- 5 Negotiate and work as part of a team.
- 6 Systematically plan, carry through and manage a project programme in a given time.
- 7 Be self-critical about own work and constructive in how to address and progress it.

Method of Assessment

Main assessment methods

Design Project (100%)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

Alexander, C. et al. (1987). A New Theory of Urban Design. Oxford: Oxford University Press.

Bunschoten, R., Hoshino, T. and Binet, H. (2001). Urban Flotsam: Stirring the City. Rotterdam: 010.

Cullen, G. (1986). The Concise Townscape. London: Architectural Press.

Guazin-Muller, D. (2002). Sustainable architecture and urbanism: concepts, technologies, examples. Basel: Birkhäuser.

Hertzberger, H. (1991 and 1999). Lessons for students in architecture. (2 vols) Rotterdam: 010.

Lynch, K. (1960). The Image of the City. Cambridge, MA: MIT.

Pre-requisites

Pre-requisite: ARCH8310 Urban Landscape (preceding term's design module)

Synopsis *

This module builds on the previous term's design exercise by focussing on a city-centre urban design problem project, exploring larger-scale issues of site and context, planning and place making. Students become familiar with relevant urban design theories and concepts, and learn to work as part of a team in developing design strategies and making detailed planning proposals. Precedent studies play an important role in shaping strategic and tactical development. Communication skills are enhanced by a range of drawing and modelling exercises, and by project presentations. The urban thinking moves from the local (where a strategic project is based in an urban ensemble, perhaps in Kent) to the global, where a dense slice of for example London or Paris is identified as the locus of design thinking and activity.

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AR848		Theory and History of Urban Design				
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
1	Canterbury	Spring	M	30 (15)	100% Coursework	
1	Paris	Spring	M	30 (15)	100% Coursework	

Contact Hours

Total contact hours: 30 hours

Private study hours: 270 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to:

- 1 Demonstrate a systematic understanding, knowledge and critical awareness of current philosophies of urban design, architecture, the history of ideas, and the related disciplines of cultural studies, art and landscape studies, and their original application in contemporary debate.
- 2 Critically appraise and form considered judgements about spatial, aesthetic, technical and the social qualities of an urban design proposal within the scope and scale of wider advanced environmental studies.
- 3 Comprehensively understand the complexity of influences on the contemporary built environment of individual buildings, the design of cities, transport infrastructure, past and present societies and wider global issues including climate change.
- 4 Systematically understand the development of major nineteenth and twentieth century cities, including new and theoretical cities.
- 5 Critically appraise and form considered judgements about the nature of the physical development of these cities in the light of their historical, social, political and technological context.
- 6 Understand critically the influences on the development of these cities on conceptual and political approaches to urban planning in the mid-twentieth century and beyond, until present Develop skills of understanding how big cities work and develop.

The intended generic learning outcomes.

On successfully completing the module students will be able to:

- 1 Creatively apply theories, research and analysis to the ideas, development and quality of a project.
- 2 Communicate effectively using a range of communication skills
- 3 Comprehensively understand the nature of differing types of documentation used in planning and analysis.

Method of Assessment

Main assessment methods

4000 word essay (100%)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

Fishman, R. (1982). *Urban Utopias of the Twentieth Century*. Cambridge (MA) and London: MIT.

Hall, P. (1998). *Cities in Civilisation*. London: Phoenix Orion.

Kostof, S. (1991). *The City Assembled*. London and New York: Thames & Hudson.

LeGates, R. & Stout, F. (eds) (2011). *The City Reader*. London and New York: Routledge.

Sassen, S. (2001) *The Global City*. New York, London, Tokyo. Princeton: NJ: Princeton University Press.

Soja, E. (2000). *Postmetropolis: Critical Studies of Cities and Regions*. Oxford: Blackwell.

Pre-requisites

None

Synopsis *

This module explores the idea of the city, and the major concepts related to urban life. It analyses and determines the conditions of their emergence within a broader cultural context. It traces how these concepts have changed through time, with the aim of enhancing our present understanding of cities and their regeneration. It follows the development of city planning and the establishment of planned, ideal cities as a political goal up to the foundation of new towns. In its dealing with historically modern cities, the module centres on case studies of cities representative of urbanism from the eighteenth to the twenty-first centuries, drawing lessons from the methods and types of documentation used in its development. The course also introduces the manner in which architecture has generated a number of spontaneous and critical responses to the demands of the city in the past four decades. The arguments are drawn from sources in architectural and urban theory, philosophy, art history, anthropology, literary sources and social sciences.

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AR849 Digital Architecture Portfolio					
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment
1	Canterbury	Whole Year	M	30 (15)	100% Coursework with Compulsory Numeric Elements

Contact Hours

Contact hours: 60
 Private Study hours: 240
 Total hours: 300

Learning Outcomes

The intended subject specific learning outcomes.
 On successfully completing the module students will be able to demonstrate:

- 1 A systematic understanding and knowledge of the wide range of skills and procedures required in digital modelling, texturing, lighting and rendering within a professional architectural context
- 2 A comprehensive understanding the role of digital visualisation in an architectural context
- 3 The ability to critically appraise the quality of rendered architectural imagery required within a professional context, and understand how their work fits within this
- 4 A critical awareness of the issues/problems raised by the application of the range of software programmes available, with advanced ability of 3D Studio Max in particular
- 5 The ability to create and develop a portfolio of architectural visualisation imagery to a professional standard

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 An ability to deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences
- 2 An ability to continue to advance their knowledge and understanding, and to develop new skills to a professional level using industry-standard software
- 3 A comprehensive ability to use 3D modelling software to explore digital form and space

Method of Assessment

Main assessment methods

Portfolio of architectural visualisation images (100%)

Re-assessment methods
 Like-for-like.

Preliminary Reading

Indicative Reading List

- Ablan, D. (2002). Digital Cinematography and Directing (Indianapolis, New Riders)
 Cusson, R & Cardoso, J. (2009). Realistic Architectural Vizualisation with 3DS MAX and Mental Ray:
 Second edition (Amsterdam, London, Focal Press)
 Daniele, T. (2008). Poly-Modelling with 3DS Max: Thinking Outside of the Box (Burlington, Focal
 Press)
 Murdock, K. (2009). 3DS MAX 2010 Bible. Indianapolis: Wiley Publishing.

Pre-requisites

None

Synopsis *

This module will guide students through the skills and procedures needed in a professional architectural visualisation context. The programme of study will compare the available software packages used in industry and will provide students with a hands-on ability to model, texture, light and render architectural visualisations. Through a series of exercises advancing in complexity, by the end of this module successful students will be able to create a portfolio of realistic digital architectural models and images appropriate for a range of target industries and applications.

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AR850	Planning Policy and Practice					
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
1	Canterbury	Spring	M	30 (15)	100% Coursework with Compulsory Numeric Elements	

Contact Hours

Total contact time: 36 hours

Total private study: 264 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to:

- 1 Critically evaluate and comment on the core principles and the legislative and policy framework which underpin development management in the built and natural environment;
- 2 Research, analyse and demonstrate a critical understanding of how spatial planning operates within the context of institutional and legal frameworks in the UK and Europe;
- 3 Critically evaluate UK spatial planning policy processes and practice in relation to urban and rural planning challenges;
- 4 Critically evaluate the social, economic, environmental and political context for the delivery of housing and infrastructure;
- 5 Demonstrate a critical understanding of the political, legal and ethical nature of spatial planning and reflect on how planners work effectively within democratic decision-making structures;
- 6 Demonstrate a critical understanding of global challenges around planning and governance, the increasing power of cities and how cities are at the forefront of delivering locally the sustainable development goals.

The intended generic learning outcomes.

On successfully completing the module students will be able to:

- 1 Plan and effectively manage the use of time, including the management of learning using a range of resources.
- 2 Manage independent creative and practical projects developing autonomy, and self-management
- 3 Develop strategy writing and presentation skills to a professional level.

Method of Assessment

Main assessment methods

Report (50%) (2,500 words)

Essay (50%) (2,500 words)

Both of the above assessed components must be passed (requirement of accreditation by the RTPI)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

Couch, C. (2016) Urban Planning: An introduction. London: Palgrave Macmillan

Crook, T., John Henneberry & Christine Whitehead (2016) Planning Gain: Providing Infrastructure and Affordable Housing. London: Wiley-Blackwell

Cullingworth et. al (2015) Town and country planning in the UK. London: Routledge

Dawn Jourdan & Eric Strauss (2015) Planning for Wicked Problems: A Planner's Guide to Land Use Law. London: Routledge

Gallent, N., Iqbal Hamiduddin, Meri Juntti, Sue Kidd, Dave Shaw (2015) Introduction to Rural Planning. London: Routledge

Greed, C. and David Johnson (2014) Planning in the UK: An introduction. London: Palgrave Macmillan

Holloway, A. (2017) Localising Global Goals in Australia's Global City: Sydney, WIT Transactions on Ecology and the Environment, vol. 226, pp. 181-191

Roadmap for Localizing the SDGs; UNDP, UN-Habitat, Global Task Force (2016)

SDGs - What local governments need to know; UCLG (2016)

Pre-requisites

None

Synopsis *

This module develops students' understanding of changing planning legislation used to guide development and land use, to appreciate how and why these have changed over time, to critically reflect upon current spatial planning mechanisms and to recognise the linkages between other public policies and spatial policies. The module also covers planning law, the relationship between decision making and the broader facilitation of development outcomes. Students will become familiar with the methods and mechanisms used for implementing spatial planning policy, the principles underpinning them, and the role of different stakeholders in the implementation process, and how individual rights and community interests are reconciled. Seminar and workshop sessions will apply the skills and knowledge gained through lectures.

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AR851 Development of planning and resilience theory						
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
1	Canterbury	Autumn	M	30 (15)	100% Coursework with Compulsory Numeric Elements	

Contact Hours

Total contact time: 36 hours

Total private study: 264 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to:

- 1 Critically reflect on the arguments for and against spatial planning along with particular theoretical approaches;
- 2 Critically reflect on theories of urban resilience and how these can be applied to city and metropolitan area governance;
- 3 Demonstrate a critical understanding of the relevance of planning and resilience theory to recent urban trends and changes in the policy context;
- 4 Use theory to appreciate the concept and practice of spatial planning questioning the theoretical assumptions underpinning key planning policies and mechanisms;
- 5 Demonstrate effective research, analytical, evaluative and appraisal skills in identifying their own perspectives and reflections on theory and the implications for their practice as planners and resilience practitioners;
- 6 Demonstrate a critical understanding of the concept of rights and how planning and development decisions have differing impacts on different people and develop the capacity to identify and explain these impacts so that they can be properly taken into account in planning decision-making.

The intended generic learning outcomes.

On successfully completing the module students will be able to:

- 1 Undertake independent and original research in the relevant of study and formulate reasoned and critical arguments.
- 2 Undertake analysis of complex, incomplete or sometimes contradictory areas of theory.

Method of Assessment

Main assessment methods

Essay 1 (60%) (3,000 words)

Essay 2 (40%) (2,000 words)

Both of the above assessed components must be passed (requirement of accreditation by the RTPI)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

Allmendinger, P. (2009) Planning Theory. Basingstoke: Palgrave Macmillan

Arup International Development (2015) City resilience framework. Developed for the Rockefeller Foundation

Campbell, S. and S. S. Fainstein (eds) (2003) Readings in Planning Theory. Oxford: Blackwell

Chelleri, L., Waters, J.J., Olazabal, M. and Minucci, G. (2015) 'Resilience trade-offs: addressing multiple scales and temporal aspects of urban resilience', Environment & Urbanization 27(1): 181–198

Cullingworth et. al (2015) Town and country planning in the UK. London: Routledge

Couch, C. (2016) Urban Planning: An introduction. London: Palgrave Macmillan

Davoudi, S. (2012) 'Resilience: a bridging concept or a dead end?' Planning Theory & Practice 13(2): 299–307.

Taylor, N. (1998) Urban planning theory since 1945. London: Sage

Pre-requisites

None

Synopsis *

The module aims to develop the students' overall understanding of alternative views in planning and resilience theories. Students will generate responses to spatial planning and global challenges grounded in theory. The module contributes to the students' lifelong appreciation of how the core values of urban planning and urban resilience expressed in theory may be applied in changing circumstances, particularly as cities suffer more and more shocks and stresses as a result of climate change and global crises.

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AR852 Global Resilience Practice						
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
1	Canterbury	Spring	M	30 (15)	100% Coursework with Compulsory Numeric Elements	
2	Canterbury	Spring	M	30 (15)	100% Coursework with Compulsory Numeric Elements	

Contact Hours

Total contact time: 36 hours

Total private study: 264 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to:

- 1 Engage in theoretical, practical and ethical debate at the forefront of global planning and resilience in the context of spatial planning demonstrating relationships to other specialist areas of expertise such as transport, waste management, green infrastructure, etc.;
- 2 Explain and demonstrate systematically how urban planning and resilience operates within the global international context of institutional and legal frameworks;
- 3 Acknowledge that urban governance decisions have differing influences and impacts on different people, and identify, explain and critically evaluate how these decisions affect individual neighbourhoods and communities;
- 4 Demonstrate conceptual understanding of the practical application of development and resilience finance for estimating costs and benefits of investment decisions;
- 5 Demonstrate comprehensive understanding of the added value and efficient resource management for building resilience for both particular interests including city leadership, funders and the wider community;
- 6 Demonstrate effective research, analytical and appraisal skills, and the ability to reach appropriate, evidence-based decisions when evaluating the distinctive contribution of spatial planning and urban resilience to the making of place and the mediation of space.

The intended generic learning outcomes.

On successfully completing the module students will be able to:

- 1 Plan and effectively manage the use of time, including the management of learning using a range of resources.
- 2 Demonstrate independent learning required for continuing professional study
- 3 Demonstrate interpersonal skills of negotiation, compromise, leadership, delegation and acceptance of responsibility within a team framework

Method of Assessment

Main assessment methods

Report (40%) (2,000 words)

Essay (60%) (3,000 words)

Both of the above assessed components must be passed (requirement of accreditation by the RTPI)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

Bagaeen, S. and Clark, C. (eds.) (2016) Sustainable regeneration of former military sites, New York: Routledge

Douglas Scarrett, Sylvia Osborn (2014) Property Valuation: The Five Methods, 3rd Edition. London: Routledge

Hall, P. and Tewdwr-Jones, M. (2010) (5th Edition) Urban and regional planning. London: Routledge

Newman, P. (2004) Planning world cities: globalization and urban politics

Ratcliffe, J., Michael Stubbs, Miles Keeping (2009) Urban Planning and Real Estate Development (3rd edition). London: Routledge

Walker, B. and Salt, D. (2012) Resilience thinking: sustaining ecosystems and people in a changing world. Washington, DC: Island Press.

Watkiss, P. and Hunt, A. (2016) 'Assessing climate-resilient development options', in S. Fankhauser and T.K. McDermott (eds), The economics of climate-resilient development. Cheltenham: Edward Elgar Publishing Ltd.

Zebrowski, C. (2008) 'Governing the network society: a biopolitical critique of resilience', Political Perspectives 3(1): 1–41

Pre-requisites

None

Synopsis *

This module is intended to contribute to the student's understanding of how the core values of urban planning and resilience apply in different cities and in different global contexts. Students will explore through projects, readings and a European field visit how the global interest in resilience extends beyond cities to include ecology, international development, health, urban forestry, food security, community planning, and global humanitarian crises. This will allow students to understand the origins of resilience and its emergence as an urban concept allowing urban practitioners to manage a rapidly changing and uncertain urban context. Through a multiple case study approach, this module explores how resilience has become part of cities' formal planning practice in multiple cities around the world.

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AR853	Principles and Methods of Bio Digital Design					
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
1	Canterbury	Autumn	M	30 (15)	100% Coursework	
2	Canterbury	Autumn	M	30 (15)	100% Coursework	

Contact Hours

Total contact hours: 36 hours

Private study hours: 264 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 A comprehensive understanding of principal concepts underpinning generative modelling methods.
- 2 A comprehensive understanding and awareness of systems-oriented thinking and its application to architectural/design problems.
- 3 A detailed understanding of dynamic systems and how to model them.
- 4 A thorough ability to use computers to explore configurations of form and space.
- 5 An ability to critically reflect on bottom-up versus top-down design thinking and processes.
- 6 An ability to use generative modelling software and demonstrate a critical understanding of concepts underpinning generative modelling techniques.

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 A comprehensive understanding of the idea of "laws of form" and how generative processes can be used to explore architectural design.
- 2 An ability to assess relevance between concepts and methods and to apply this knowledge practically using and adapting generative design techniques.

Method of Assessment

Main assessment methods

Report (100%) (3000-5000 words)

Reassessment methods

100% course work

Preliminary Reading

Indicative Reading List

Ball, P. (2017). Patterns in Nature: Why the Natural World Looks the Way it Does. University of Chicago Press.

Burry, M. (2011). Scripting Cultures: Architectural Design and Programming. John Wiley & Sons.

Coates, P. (2010). programming.architecture. Routledge, London.

Resnick, M. (1998). Turtles, Termites and Traffic Jams: Explorations in Massively Parallel Microworlds. MIT Press, Cambridge, MA.

Jabi, W. (2014). Parametric Design for Architecture. Laurence King Publishing, London.

Pre-requisites

None

Synopsis *

This module will introduce students to thinking about form and spatial organisation as a bottom-up process and give students an introduction to the use of the computer as a tool to model generatively. Students will be introduced to a series of concepts and theoretical positions to anchor their outlook, facilitate engagement with the computational logic of the programme, develop their understanding of key concepts and ideas to support and further their design thinking, and develop their understanding of the role and application of computing in and for architectural design.

The module consists of a blend of lectures, seminars and workshops. Concepts and theories fundamental to the programme are presented in lectures and seminars, which are married with workshop sessions in which students are introduced to computer modelling methods that demonstrate the theory. Workshops will be studio based to emphasise a design ethos and promote exchange between theory, demonstration and application. Students will be required to adapt a method presented towards the generation of architectural space and form.

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AR854		Introduction to Programming for Architecture and Design				
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
1	Canterbury	Autumn	M	30 (15)	100% Coursework	

Contact Hours

Total contact hours: 36 hours

Private study hours: 264 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 A comprehensive understanding of the fundamentals of the Processing computer programming language.
- 2 A comprehensive understanding of the principles of computer code and Object-Oriented Programming.
- 3 A comprehensive understanding of agent-based modelling.
- 4 An ability to read and adapt computer code, to produce a different outcome.
- 5 An ability to think spatially and behaviourally through code.

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 A comprehensive understanding of the principles of programming and writing computer code.
- 2 An ability to think algorithmically.

Method of Assessment

Main assessment methods

Report (100%) (2000 to 4000 words)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

Reas, C. and Fry, B. (2015). Processing: A Programming Handbook for Visual Designers and Artists. The MIT Press, Cambridge: Mass.

Shiffman, D. (2012). The Nature of Code: Simulating Natural Systems with Processing. The Nature of Code.

Shiffman, D. (2015). Learning Processing: A Beginner's Guide to Programming Images, Animation, and Interaction. Morgan Kaufmann, Amsterdam, London.

Pre-requisites

None

Synopsis *

This module will introduce students to the basics of computer programming to take them from beginners through to intermediate programmers, using Processing, a Java-based language created for visual designers, architects and artists. Through the course, students will learn how to use core Processing methods, and transferable programming techniques, to create architectural spatial formations.

Students will be taught the fundamentals of computer code through a series of workshops, which are studio based to emphasise a design ethos and promote exchange between learning code and application. Students will learn how to write short programs that create dynamic patterns and then, having grasped the fundamentals of coding, will study Object-Oriented Programming (OOP) and Agent-Based Modelling (ABM). The module will shift from taught workshop demonstrations initially to tutorial/studio oriented sessions in which the students will develop a short ABM program generating architectural space and form as a result of interaction.

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AR855	Discourse and Theory of Bio Digital Architecture					
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
1	Canterbury	Spring	M	30 (15)	100% Coursework	

Contact Hours

Total contact hours: 36 hours

Private study hours: 264 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 A comprehensive understanding of theories of space and spatiality.
- 2 An ability to establish a position and to reflect critically on different theories in relation to the student's idiosyncratic perspective.
- 3 An awareness and comprehensive understanding of contemporary biological theory and its relevance to architecture.
- 4 A comprehensive understanding of theories and models in the sciences, and influence on art and design.
- 5 A comprehensive understanding of the relationship between people and buildings/their environment.
- 6 An ability to think critically and cross-disciplinarily about the relevance and transfer of concepts and theory between disciplines.

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 A comprehensive ability to think in terms of space, form and order from both a biological and architectural perspective.
- 2 An ability to undertake independent cross-disciplinary research in the areas of biology and architecture and to formulate reasoned and critical judgements.
- 3 Ability to independently define and appraise ideas and make reasoned judgements.
- 4 An ability to write an essay and present a coherent argument dealing with knowledge and understanding of complex issues.

Method of Assessment

Main assessment methods

Essay (5000 words) (100%)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

Gruber, P. (2011). Biomimetics in Architecture - Architecture of Life and Buildings. Springer-Verlag, Wien.

Mertins D. 2007 Where Architecture Meets Biology: An Interview with Detlef Mertins. In Interact or Die! (eds J Brouwer, A Mulder), pp. 110–131. V2 Publishing

Kwinter, Sanford. (1992). "Emergence: Or the Artificial Life of Space", in Anywhere. New York:

Rizzoli, 1992.

O'Keefe, J. and Nadel, L. (1978). Chapter 1. Remembrance of places past: a history of theories of space, in The Hippocampus as a Cognitive Map. Oxford University Press, Oxford.

Pinter-Wollman, N., Fiore, S. M., Theraulaz, G. and Penn, A. (2018). Interdisciplinary approaches for uncovering the impacts of architecture on collective behaviour. Philosophical Transactions of the Royal Society B. Noa Pinter-Wollman, Stephen M. Fiore, Guy Theraulaz and Alan Penn (Eds.). Volume 373, Issue 1753. 19th August 2018.

Terranova, C.N. and Tromble, M. (2017). The Routledge Companion to Biology in Art and Architecture. Charissa N.

Terranova and Meredith Tromble (Eds.). Routledge.

Pre-requisites

None

Synopsis *

This module aims to develop the student's overall understanding of contemporary scientific theories pertinent to avant-garde architectural design methodologies. Students will develop an interdisciplinary and contemporary understanding of architecture, architectural design, and how people perceive and interact through the study of concepts from other fields relevant, yet traditionally separate, to architecture; such as biology, psychology, computer science and philosophy.

The module consists of lectures that introduce and describe contemporary concepts and theories applicable to bio digital architecture, and seminars in which students will debate and analyse propositions to critically reflect on architecture, architectural design and the quality of the built environment. The aim of the module is to develop the student's ability to write in a way that deals with complex issues, and that addresses the outcomes of the module.

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AR856		Morphogenetic Programming				
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
1	Canterbury	Spring	M	30 (15)	100% Coursework	

Contact Hours

Total contact hours: 36 hours

Private study hours: 264 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 A comprehensive understanding of biological morphogenesis and evolution and its abstraction and systematisation for computational modelling.
- 2 A comprehensive understanding of the relationships between morphological models and parametric modelling.
- 3 Ability to demonstrate knowledge and skills of geometrical and spatial understanding of digital morphogenesis and computational design processes.
- 4 A comprehensive understanding of decentralised processes of configuration to speculate how processes of form making and pattern generation in nature may be applied
to (re)formulate and (re)articulate how we think about space, architecture and the built environment.
- 5 A comprehensive understanding of the computer as a tool to simulate bio-inspired spatial self-organisation.

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 Knowledge and skills in the analysis and evaluation of morphological systems for architectural design, and an ability to apply these skills appropriately.
- 2 A comprehensive understanding of generative algorithms and their applications in creating space, form and structure.

Method of Assessment

Main assessment methods

Report (100%) (3000 to 5000 words)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

Flake, G. W. (1998). *The Computational Beauty of Nature: Computer Explorations of Fractals, Chaos, Complex Systems, and Adaptation*. The MIT Press: Cambridge, Mass.

Frazer, J. (1995). *Evolutionary Architecture*. AA Publications: London.

Leach, N. (2009). Digital Morphogenesis, in *Architectural Design*, 79, 1, pp. 32–37

Reynolds, C.W. (1987). Flocks, Herds, and Schools: A Distributed Behavioural Model, in *Computer Graphics*, 21(4), July 1987, p25-34.

Theraulaz G. (2014). Embracing the Creativity of Stigmergy in Social Insects, in *Architectural Design* 84, p54–59.

Tibbits, S., van der Harten, A. and Baer, S. (2011). *RhinoPython 101 Primer*.

Pre-requisites

None

Synopsis *

The Morphogenetic Programming module introduces students to generative algorithms for creating structures to challenge traditional notions of designing architectural form and space, and (in tandem with the Discourse and Theory module) will cultivate a bio digital outlook to architectural design for the students research-oriented thesis project. Students will study various methods of simulating natural processes of growth and pattern formation using computational methods and explore how these may be utilised for design and the generation of architectural form and structure.

The module is taught through a blend of lectures and seminars that introduce and describe concepts and models of morphogenesis, and workshops in which students will develop their computer programming skills and exercise computational methods of form generation to explore their application to the generation of architectural space, structure and form.

Workshops will be studio based to emphasise a design ethos and promote exchange between learning concepts, methods, code and application. The module will shift from taught workshop demonstrations initially to tutorial/studio oriented sessions in which the students will exercise and adapt the modelling methods presented to develop architectonic propositions generated through bio-inspired spatial self-organisation.

AR857		Professionalism, Clients, Users and the Delivery of Services				
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
1	Canterbury	Autumn	M	15 (7.5)	60% Coursework, 40% Exam	

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1	Canterbury	Spring	M	15 (7.5)	100% Coursework
1	Canterbury	Autumn	M	15 (7.5)	100% Coursework

Contact Hours

Total Contact Hours: 15
Private Study Hours: 135
Total Hours: 150

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to:

- 1 Demonstrate a systematic understanding of UK architectural practice and the property and construction sectors in a wider international context, enabling graduates to
 - adapt creatively to the challenges and opportunities of cross-border collaboration and geographical diversification in unstable political and economic climates.
- 2 Demonstrate a critical understanding of the architect's obligation to society and the profession, and a sufficient awareness of the limits of their competence and
 - professional experience to ensure they will behave with integrity, in the ethical and professional manner appropriate, and are unlikely to bring the profession into disrepute (PC1).
- 3 Demonstrate the autonomous skills necessary to provide a competent range of services, both singly and as part of a team, including understanding of client needs,
 - appropriate communication, programming, coordination and competent delivery (PC2).
- 4 Demonstrate a systematic understanding and knowledge of the briefing process, forms and terms of appointment, the means of professional remuneration, relevant
 - legislation, and the execution of appropriate programmed and coordinated project tasks (PC2).
- 5 Demonstrate the skills necessary to interact autonomously with statutory and private bodies or individuals, and competently deliver projects within diverse legislative frameworks (PC3).

The above learning outcomes are cross-referenced where appropriate to the Architects Registration Board (ARB) and Royal Institute of British Architects (RIBA) criteria for Part 3 of UK architectural qualifications (PC1 and PC2). A more detailed mapping of the ARB/RIBA sub-criteria (PC1.1, PC1.2, PC1.3 etc) is provided in a schedule of teaching and assessment.

The intended generic learning outcomes.

On successfully completing the module students will be able to:

- 1 Demonstrate an ability to communicate effectively and well, using a range of skills.
- 2 Demonstrate an ability to synthesise information from a number of sources in order to gain a coherent understanding of theory and practice.
- 3 Demonstrate original problem solving skills, professional judgment, and ability to take the initiative and make appropriate decisions in complex and unpredictable circumstances.
- 4 Demonstrate the ability to use communication methods and appropriate media to represent testing, analysis, and critical appraisal of complex proposals to professional and lay audiences.

Method of Assessment

Main Assessment Methods

2,500 word essay

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

- Architects Registration Board (2017) The Architects Code: Standards of Professional Conduct and Practice
Brookhouse, S. (2014) Part 3 Handbook (3rd Edition), London: RIBA Publishing
Chappell, D and Willis, A (2010) The Architect in Practice (10th Edition), London: Wiley-Blackwell
Emmitt, S (2014) Design management for architects, New York: Wiley-Blackwell
Fisher, T. (2010) Ethics for Architects: 50 Dilemmas of Professional Practice, Princeton Architectural Press
Foxell, S (2018) Professionalism for the built environment, Routledge
RIBA (2018) Code of Professional Conduct and Code of Practice
Samuel, F (2018) Why architects matter, Routledge
Sinclair, D (2014) Design management, London: RIBA Publishing

Pre-requisites

None

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Synopsis *

This module will have a taught lecture and seminar format. Traditional and innovative approaches to the broad concept of professionalism in the context of the architectural profession, and specifically with reference to the inter-relationships between architects, co-professionals, clients, contractors and other stakeholders will be presented in lectures and analysed in seminars, with reference to both generic scenarios and situations based on the students' individual prior experience of professional practice.

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AR858		Legal Framework and Processes				
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
1	Canterbury	Autumn	M	15 (7.5)	100% Coursework	
1	Canterbury	Spring	M	15 (7.5)	100% Coursework	

Contact Hours

Total Contact Hours: 15

Private Study Hours: 135

Total Hours: 150

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to:

- 1 Demonstrate systematic knowledge and understanding of the legal system both generally and in relation to architectural practice, the processes undertaken to ensure compliance with legal requirements or standards, providing a foundation for graduates seeking to develop specialisms in construction law and/or pursuing careers as expert witnesses, adjudicators or arbitrators (PC3).
- 2 Demonstrate an understanding of the fundamental values and duties of care imposed on practicing professionals in relation to all stakeholders in the design and construction process.
- 3 Demonstrate the skills necessary to autonomously interact with statutory and private bodies or individuals, and competently deliver projects within diverse legislative frameworks (PC3).
- 4 Demonstrate systematic knowledge of the nature of legal business entities, office systems, administration procedures and the relevant legislation (PC4).
- 5 Demonstrate an understanding of contractual relationships, the obligations upon an architect acting as contract administrator, job-related administrative systems and the management of projects in the context of the candidate's autonomous professional experience (PC5).

The above learning outcomes are cross-referenced where appropriate to the Architects Registration Board (ARB) and Royal Institute of British Architects (RIBA) criteria for Part 3 of UK architectural qualifications (PC3, PC4 and PC5). A more detailed mapping of the ARB/RIBA sub-criteria (PC3.1, PC3.2, PC3.3 etc) is provided in a schedule of teaching and assessment.

- 1 Demonstrate original problem solving skills, professional judgment, and ability to take the initiative and make appropriate decisions in complex and unpredictable circumstances.
- 2 Demonstrate an ability to synthesise information from a number of sources in order to gain a coherent understanding of theory and practice.
- 3 Demonstrate an ability to argue rationally and to draw independent conclusions based on an original, rigorous, analytical and critical approach to data, demonstration and argument.
- 4 Demonstrate an ability to produce reports which are clear, analytical and logical covering a range of technical issues and include appropriate illustrations, presenting complex proposals to professional and lay audiences.

Method of Assessment

Main Assessment Methods

2,500 word essay

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

Building Act 1984 Legislation.gov.uk

Uff, J (2017) Construction Law (12th Edition) Sweet & Maxwell

Wevill, J (2018) Law in practice (3rd Edition), London, RIBA Publishing

Town and Country Planning Act 1990 Legislation.gov.uk

The Building Regulations 2010 Legislation.gov.uk

The Building (Amendment) Regulations 2018 Legislation.gov.uk

Pre-requisites

None

Synopsis *

This module will have a taught lecture and seminar format. The principles of criminal and civil law, with particular emphasis on contract and tort in the context of the architectural profession, and specifically with reference to the inter-relationships between architects, co-professionals, clients, contractors and other stakeholders will be presented in lectures and analysed in seminars, with reference to both generic scenarios and situations based on the students' individual prior experience of professional practice.

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AR859 Practice and Management						Convenor
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	
1	Canterbury	Spring	M	15 (7.5)	100% Exam	
1	Canterbury	Spring	M	15 (7.5)	100% Exam	

Contact Hours

Total Contact Hours: 15

Private Study Hours 135

Total Hours: 150

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to:

- 1 Demonstrate a systematic knowledge and understanding of the theories and practices of operational management applied in the architectural profession, potentially preparing graduates for more specialised studies or research eg MBA or PhD programmes in management
- 2 Demonstrate rational and autonomous decision-making and leadership skills, to equip graduates for senior positions in established business organisations or independent practice.
- 3 Demonstrate a systematic understanding of the range of services offered by architects and delivering those services in a manner prioritising the interests of the client and other stakeholders (PC2).
- 4 Demonstrate a comprehensive understanding of the business priorities, required management processes and risks of running an architectural practice, to autonomously resource, plan, implement and record project tasks to achieve stated goals, and the relationship between the practice of architecture and the UK construction industry (PC4).
- 5 Demonstrate the skills necessary to plan project-related tasks, coordinate and engage in design team interaction, execute effective contract communication specifically including all aspects of the administration of traditional construction contracts and autonomously resolve construction-related challenges and disputes (PC5).

The above learning outcomes are cross-referenced where appropriate to the Architects Registration Board (ARB) and Royal Institute of British Architects (RIBA) criteria for Part 3 of UK architectural qualifications (PC2, PC4 and PC5). A more detailed mapping of the ARB/RIBA sub-criteria (PC2.1, PC2.2, PC2.3 etc) is provided in a schedule of teaching and assessment.

The intended generic learning outcomes.

On successfully completing the module students will be able to:

- 1 Demonstrate autonomous and original problem solving skills, professional judgment, and ability to take the initiative and make appropriate decisions in complex and unpredictable circumstances.
- 2 An ability to argue rationally and to draw independent and autonomous conclusions based on a rigorous, analytical and critical approach to data, demonstration and argument.
- 3 An ability to evaluate research and a variety of types of information and evidence critically.
- 4 Ability to produce reports which are clear, analytical and logical covering a range of technical issues and include appropriate illustrations.
- 5 Ability to reflect on project progress and develop original and appropriate enhancement strategies.

Method of Assessment

Main Assessment Methods

Written 3 hour examination (100%)

Reassessment methods

Like for like

Preliminary Reading

The University is committed to ensuring that core reading materials are in accessible electronic format in line with the Kent Inclusive Practices.

The most up to date reading list for each module can be found on the university's reading list pages:
<https://kent.rl.talis.com/index.html>

Indicative Reading List

- Brookhouse, S. (2014) Part 3 Handbook (3rd Edition), London: RIBA Publishing
 Chappell, D and Willis, A (2016) The Architect in Practice (11th Edition), London: Wiley-Blackwell
 Foxell, S (2015) Starting a Practice: A Plan of Work (2nd Edition), London: RIBA
 Green, R (2001) The Architect's Guide to Running a Job, London: Architectural Press
 Lupton, S (2002) Architect's Handbook of Practice Management, London: RIBA
 Lupton, S (2016) Guide to JCT Standard Building Contract, London, RIBA Publishing
 Sinclair, D (2013) Guide to Using the RIBA Plan of Work 2013, London: RIBA

Pre-requisites

None

2021-22 Postgraduate Module Handbook

Synopsis *

This module will have a taught lecture and seminar format. Traditional and innovative approaches to strategic and operational practice and management of organisations and projects in the context of the architectural profession, and specifically with reference to the inter-relationships between architects, co-professionals, clients, contractors and other stakeholders will be presented in lectures and analysed in seminars, with reference to both generic scenarios and situations based on the students' individual prior experience of professional practice.

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AR860		Building Procurement				
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
1	Canterbury	Spring	M	15 (7.5)	100% Exam	
1	Canterbury	Spring	M	15 (7.5)	100% Exam	

Contact Hours

Total Contact Hours: 15
 Private Study Hours: 135
 Total Hours: 150

Learning Outcomes

The intended subject specific learning outcomes.
 On successfully completing the module students will be able to:

- 1 Demonstrate a systematic knowledge and understanding of the principles of building procurement enabling graduates to transcend traditional contractual arrangements and respond to the property sector's and political establishment's needs for innovative practices.
- 2 Demonstrate a comprehensive understanding of UK construction and contract law, construction procurement processes and the roles of built environment professionals (PC5).
- 3 Demonstrate the skills necessary to plan project-related tasks, coordinate and engage in design team interaction, execute effective contract communication and autonomously resolve construction-related challenges and disputes (PC5).
- 4 Demonstrate a systematic understanding of contractual relationships, the obligations upon an architect acting as contract administrator, job-related administrative systems and the management of projects in the context of the candidate's autonomous professional experience (PC5).

The above learning outcomes are cross-referenced where appropriate to the Architects Registration Board (ARB) and Royal Institute of British Architects (RIBA) criteria for Part 3 of UK architectural qualifications (PC5). A more detailed mapping of the ARB/RIBA sub-criteria (PC5.1, PC5.2, PC5.3 etc) is provided in a schedule of teaching and assessment.

- 1 Demonstrate autonomous problem solving skills, professional judgment, and ability to take the initiative and make appropriate decisions in complex and unpredictable circumstances.
- 2 Demonstrate an ability to synthesise information from a number of sources in order to gain a coherent understanding of theory and practice.
- 3 Demonstrate an ability to argue rationally and to draw independent conclusions based on a rigorous, analytical and critical approach to data, demonstration and argument.
- 4 Demonstrate ability to produce reports which are clear, analytical and logical covering a range of technical issues and include appropriate illustrations.
- 5 Demonstrate the ability to use a diverse range of communication methods and appropriate media to represent testing, analysis, and critical appraisal of complex proposals to professional and lay audiences.

Method of Assessment

Main Assessment Methods

Written 3 hour examination (100%).

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

- Forward, F (2018) Architect's Guide to NEC4, London, RIBA Publishing
 Lupton, S (2016) Guide to JCT Standard Building Contract, London, RIBA Publishing
 Lupton, S (2016) Guide to JCT Intermediate Building Contract, London, RIBA Publishing
 Lupton, S (2016) Guide to JCT Minor Works Building Contract, London, RIBA Publishing
 Lupton, S (2018) Guide to RIBA Building Contracts, London, RIBA Publishing
 Stellakis, M & Lupton, S (2019) Which Contract (6th Edition), London, RIBA Publishing

Pre-requisites

None

Synopsis *

This module will have a taught lecture and seminar format. Traditional and innovative approaches to building procurement, including traditional, design-build and management contracts as found in standard and bespoke agreements, will be presented in lectures and analysed in seminars, with reference to both generic scenarios and situations based on the students' individual prior experience of professional practice.

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AR861		Film & Architecture				Convenor
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	
1	Canterbury	Whole Year	M	30 (15)	100% Coursework	

Contact Hours

Total contact hours: 80 hours

Private study hours: 220 hours

Total study hours: 300 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to:

1. A comprehensive understanding of the relationship of the camera to architecture and the built environment, and of the key elements of film narrative and style, and the key processes involved in film and video production.
2. An ability to demonstrate through writing and oral presentation a systematic knowledge of the histories and theories of architecture in and of film
3. An ability to critically appraise and form considered judgements about the importance of the narrative, symbolism and aesthetic treatment of architecture in film and animation.
4. Be able to relate their work in other modules within the broader context of contemporary filmmaking theories and practices across pre-production, production, and post-production.
5. Be technically competent in the use of appropriate video production technologies and techniques.

The intended generic learning outcomes.

On successfully completing the module students will be able to:

1. An ability to deal with complex issues about the cultural context of film and architecture, making sound judgements and communicate conclusions to a specialist audience through a variety of communication methods.
2. An ability to continue to advance knowledge and understanding of the history and theory of film and architecture.
3. Utilise time management skills to meet tight deadlines.
4. Communicate information effectively through audio-visual means.
5. Have the ability to reflect upon their work in a critical and analytical manner.

Method of Assessment

Main assessment methods

Seminar presentation (25%)

Essay / Video Essay (3,500 words) (25%)

Film Project (50%)

Reassessment methods

Like for like with the following clarification:

Video Presentation with associated notes on topic replacing seminar presentation (25%)

Preliminary Reading

Indicative Reading List

Cairns, G. (2013) The Architecture of the Screen. Bristol: Intellect.

Doughty, R. & Ehterington-Wright, C (2017) Understanding Film Theory. London: Palgrave

Jago, M (2019) Adobe Premiere Pro CC. San Jose: Adobe Press

Lamster, M. (2000). Architecture and Film. New York: Princeton Architectural Press.

Neumann, D. (1996) Film Architecture: from Metropolis to Blade Runner. Munich: Prestel

Penz, F & Thomas, M. (1997). Cinema & Architecture: Melies, Mallet-Stevens, Multimedia. London: British Film Institute.

Tobe, R. (2018) Film, Architecture and Spatial Imagination. Abingdon: Routledge

Pre-requisites

None

Synopsis *

This module reviews the representation of architecture in film through history, by looking at influential cinematic depictions of the built form. With light being such an important factor in both disciplines, the links between the two industries are explored, analysing films from early German Expressionist cinema through to present-day utopian/dystopian films. Students will investigate how the cinematic depiction of architecture can alter the character of the built environment and the way in which it is portrayed. This module aims to explore the relationship of architecture to lens, and screen to audience. These relationships are then further explored and realised through the production of a film project.

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AR862		Architectural Post Production				
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
1	Canterbury	Spring	M	15 (7.5)	100% Coursework with Compulsory Numeric Elements	

Contact Hours

Total contact hours: 30 hours

Private study hours: 120 hours

Total study hours: 150 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to:

1. Demonstrate an understanding of the role of compositing in still and moving imagery within an architectural visualisation context.
2. Demonstrate an ability to prepare computer-generated scenes ready for post-production, using industry standard software.
3. Demonstrate an understanding of the techniques needed to integrate computer-generated imagery with photographic images.
4. Demonstrate an understanding of the techniques needed to integrate computer-generated animation and video footage.
5. Demonstrate an ability to seamlessly add photographic props and elements into computer-generated architectural imagery and video.
6. Demonstrate an ability to seamlessly integrate computer-generated architecture into photographs and video.

The intended generic learning outcomes.

On successfully completing the module students will be able to:

1. Identify and apply the appropriate use of software programs for the required task.
2. Utilise time management skills to meet tight deadlines and manage multiple projects.
3. Communicate information effectively through audio-visual means.
4. Have the ability to reflect upon their work in a critical and analytical manner.

Method of Assessment

Main assessment methods

Project 1 – Portfolio of still composite images (50%)

Project 2 – Show reel of composited videos (50%)

Both of the above assessed components must be passed

Reassessment methods

Like for like.

Preliminary Reading

Indicative Reading List

Brinkman, R (2008) The art and science of digital compositing. San Francisco: Morgan Kaufmann

Christiansen, M (2014) Adobe After Effects CC visual effects and compositing: studio techniques. Berkeley: Peachpit

Malley, B (2017) Adobe Master Class: Advanced Compositing in Adobe Photoshop CC. US: Adobe Press

Okun, J. and Zwerman, S (2020) The VES Handbook of Visual Effects: Industry Standard VFX Practices and Procedures. London: Routledge

Wright, S (2018) Digital Compositing for Film and Video. New York: Routledge

Pre-requisites

None

Synopsis *

In this module, students will learn the processes and techniques used to composite computer-generated imagery into 'real' still and moving film and video footage within an architectural visualisation context, and visa versa. Through a series of lectures and workshops, students develop fundamental skills and a thorough understanding of industry standard software to enable the integration of architecture into site context to a professional standard. Learning techniques, such as compositing, camera tracking, rotoscoping, blending modes and keying, students will produce a portfolio and show reel of architectural imagery using both captured footage and computer-generated modelling.

AR896		Case Study				
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
1	Canterbury	Spring	M	60 (30)	100% Coursework with Compulsory Numeric Elements	
1	Canterbury	Whole Year	M	60 (30)	100% Coursework with Compulsory Numeric Elements	

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1	Canterbury	Spring	M	60 (30)	100% Coursework with Pass/Fail Elements
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Contact Hours

Total Contact Hours: 15
Private Study Hours: 585
Total Hours: 600

Learning Outcomes

The intended subject specific learning outcomes.
On successfully completing the module students will be able to:

- 1 Demonstrate in a case study a clear understanding of the architect's obligation to society and the profession, and a sufficient awareness of the limits of their competence and professional experience to ensure they are unlikely to bring the profession into disrepute (PC1).
- 2 Demonstrate a systematic understanding of the range of services offered by architects and delivering those services in a manner prioritising the interests of the client and other stakeholders (PC2).
- 3 Demonstrate the diverse skills necessary to provide a competent service, both singly and as part of a team, including understanding of client needs, appropriate communication, programming, coordination and competent delivery and resolve construction-related challenges and disputes (PC2, PC5).
- 4 Demonstrate knowledge of the briefing process, forms and terms of appointment, the means of professional remuneration, relevant legislation, and the execution of appropriate programmed and coordinated project tasks (PC2).
- 5 Demonstrate an understanding of UK construction and contract law, construction procurement processes and the roles of built environment professionals (PC5).
- 6 Demonstrate the autonomous skills necessary to plan project-related tasks, coordinate and engage in design team interaction, execute effective contract communication

The above learning outcomes are cross-referenced where appropriate to the Architects Registration Board (ARB) and Royal Institute of British Architects (RIBA) criteria for Part 3 of UK architectural qualifications (PC1, PC2, PC3, PC4 and PC5).

The intended generic learning outcomes.

On successfully completing the module students will be able to:

- 1 Demonstrate the ability to communicate effectively and well, using a range of skills.
- 2 Demonstrate an ability to argue rationally and to draw independent conclusions based on a rigorous, analytical and critical approach to data, demonstration and argument.
- 3 Demonstrate problem solving skills, professional judgment, and ability to take the initiative and make appropriate decisions in complex and unpredictable circumstances.
- 4 Demonstrate an ability to produce reports which are clear, analytical and logical covering a range of technical issues and include appropriate illustrations.
- 5 Demonstrate an ability to present orally and discuss complex and contradictory issues in a structured and analytical manner.

Method of Assessment

Main assessment methods

Case Study Report incorporating illustrated CV, critical career self-evaluation and Record of Professional Practice (Professional Experience Development Record) (80%)

45 minute Oral Examination (20%)

The Oral Examination will be conducted by a minimum of two Professional Examiners. Such Examiners will be registered architects with significant experience in practice.

Both of the above assessed components must be passed.

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

Architects Registration Board (2017) The Architects Code: Standards of Professional Conduct and Practice

Brookhouse, S. (2014) Part 3 Handbook (3rd Edition), London: RIBA Publishing

Chappell, D and Willis, A (2010) The Architect in Practice (10th Edition), London: Wiley-Blackwell

Emmitt, S (2014) Design management for architects, New York: Wiley-Blackwell

Foxell, S (2018) Professionalism for the built environment, Routledge

RIBA (2018) Code of Professional Conduct and Code of Practice

Samuel, F (2018) Why architects matter, Routledge

Schmalz, B (2014) The Architect's Guide to writing, London: Images Publishing

Sinclair, D (2014) Design management, London: RIBA Publishing

Pre-requisites

None

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Synopsis *

This module will require students to present and analyse their individual professional experience, focusing on a limited number of case study projects in which they exercised a significant level of responsibility, to record the overall progression of the design and procurement process and specifically illustrate the relationship between theory and practice with reference to professionalism, legal frameworks, practice management and building procurement. The module also requires students to present and reflect on the totality of their professional experience, as documented in their Professional Experience and Development Record (PEDR) diaries using the RIBA's standard templates, and to submit a detailed curriculum vitae. The largely self-directed outputs are guided and supported by tutorials on an individual basis or in small study groups.

AR897		Dissertation				Convenor
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	
1	Canterbury	Spring	M	60 (30)	100% Project	

Contact Hours

Total Contact Hours: 15
Private Study Hours: 135
Total Hours: 150

Learning Outcomes

The intended subject specific learning outcomes.
On successfully completing the module students will be able to:

- 1 Design, conceptualise and write a significant individual investigative work, in-depth reading and critical discussion of appropriate key literature at the forefront of the chosen specialism;
- 2 Plan, organise and rigorously execute research using appropriate methods, an investigation of a significant issue relevant to the degree programme with a minimum of external guidance;
- 3 Organise and carry out appropriate and effective data collection (with due regard for safety and risk assessment), analysis and interpretation using appropriate statistical, textual or other types of techniques;
- 4 Communicate appropriate ideas, results and conclusions in the form of a written dissertation or research project, with a high standard of presentation, in a logical, persuasive and readily understandable manner;
- 5 Demonstrate the ability to select, apply and evaluate suitable research approaches and techniques

The above learning outcomes are cross-referenced where appropriate to the Architects Registration Board (ARB) and Royal Institute of British Architects (RIBA) criteria for Part 3 of UK architectural qualifications (PC5). A more detailed mapping of the ARB/RIBA sub-criteria (PC5.1, PC5.2, PC5.3 etc) is provided in a schedule of teaching and assessment.

The intended generic learning outcomes.

On successfully completing the module students will be able to:

- 1 Undertake independent and original research in the relevant field of study and formulate reasoned and critical arguments.
- 2 Undertake analysis of complex, incomplete or sometimes contradictory areas of theory.
- 3 Develop their ability to construct and evaluate arguments.
- 4 Reflect on their own learning, planned their use of time, and identified appropriate directions for further study, encouraged by the individual supervisor.

Method of Assessment

Main Assessment Methods

Dissertation (100%) (10,000 words)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

Forward, F (2018) Architect's Guide to NEC4, London, RIBA Publishing
Lupton, S (2016) Guide to JCT Standard Building Contract, London, RIBA Publishing
Lupton, S (2016) Guide to JCT Intermediate Building Contract, London, RIBA Publishing
Lupton, S (2016) Guide to JCT Minor Works Building Contract, London, RIBA Publishing
Lupton, S (2018) Guide to RIBA Building Contracts, London, RIBA Publishing
Stellakis, M & Lupton, S (2019) Which Contract (6th Edition), London, RIBA Publishing

Pre-requisites

None

Synopsis *

This module will have a taught lecture and seminar format. Traditional and innovative approaches to building procurement, including traditional, design-build and management contracts as found in standard and bespoke agreements, will be presented in lectures and analysed in seminars, with reference to both generic scenarios and situations based on the students' individual prior experience of professional practice.

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AR898	Dissertation: MSc in Architectural Conservation					
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Spring	M	60 (30)	100% Project	
2	Canterbury	Spring	M	60 (30)	100% Coursework	

Contact Hours

Total contact hours: 20 hours
 Private study hours: 580 hours
 Total study hours: 600 hours

Learning Outcomes

The intended subject specific learning outcomes.
 On successfully completing the module students will be able to:

- 1 An ability to demonstrate a holistic understanding of the conservation of historic buildings, and the ways in which conservation theory informs conservation practice.
- 2 An ability to carry out bibliographical and archival research to establish the history and significance of a heritage asset.
- 3 The ability to experiment with the use of a wide range of conservation methods and to understand the implications of their use.
- 4 An understanding of the complete process of conservation projects, from the initial survey and the development of a brief to the actual design and its specification.

The intended generic learning outcomes.

On successfully completing the module students will be able to:

- 1 The ability to work as part of an interdisciplinary team, to share tasks equitably and to communicate with different specialists.
- 2 The ability to carry out independent research, establishing research objectives, constructing valid research hypotheses and expressing reasoned arguments, grounded by critical reference to carefully identified existing scholarship.
- 3 The ability to express research results in an efficient, legible way, through the development of advanced presentation skills.

Method of Assessment

Main assessment methods

Dissertation/Project (100%)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

Subject related – bibliography to be developed by student with the assistance of relevant supervisors and module related bibliographies. What follows is an indicative list of books on dissertation writing, management, and methodology.

Biggam, J. (2011; available as an e-book) Succeeding with your master's dissertation: a step-by-step handbook. Maidenhead: Open University Press.

Borden, I. (2006). The dissertation an architecture student's handbook, Amsterdam: Architectural.

Charles, F.W.B. (2003) Conservation of Timber Buildings, Shaftesbury: Donhead (It includes a series of case-studies of conservation projects)

Phillips, R. (2000). The architect's plan of work: for the procurement of feasibility studies, a fully designed building project, employer's requirements or contractor's proposals. London: RIBA Enterprises.

Swetnam, D. (2004). Writing your dissertation: how to plan, prepare and present successful work. Oxford: How To Books.

Pre-requisites

Pre-requisite: all previous programme modules

Synopsis *

The dissertation will be a conservation project including fieldwork and scholarly research. It will be based on an existing historic building that will be visited during the Summer Term. Students will work in one or more groups, but each one will be asked to specify the nature of her/his contribution to the team's work from the outset. Each student will focus on one or more areas that reflect her/his background and interests. What follows is an indicative list of the areas that may be chosen and the corresponding 'dissertation product' (in parentheses):

- Historical Research and Documentation (Survey)
- Graphic Recording and Structural Survey (Structural Report)
- Analysis and Testing of Building Materials (Structural Report)
- Conservation Theory Issues (Theoretical dissertation)
- Preparation of a Conservation Plan (Theoretical dissertation)
- Repair and Structural Intervention (Conservation Project)
- Reflection on a bid for the funding of a conservation project (Theoretical dissertation)

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AR899 Dissertation: Architecture and the Sustainable Environment						
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Spring	M	60 (30)	100% Project	
2	Canterbury	Spring	M	60 (30)	100% Coursework	

Contact Hours

Total contact hours: 20 hours

Private study hours: 580 hours

Total study hours: 600 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 A systematic understanding of existing work along with critical evaluation of state-of-the-art literature in the chosen field to formulate research hypotheses in the field of sustainable architecture.
- 2 The ability to develop appropriate methodologies for achieving one's research objectives.
- 3 The ability to independently develop well supported critical analysis with a coherent argument based on theory and subsequent collected empirical evidence, demonstrating holistic understanding of low energy buildings.

The intended generic learning outcomes.

On successfully completing the module students will be able to demonstrate:

- 1 The ability to critically analyse material to form independent conclusions in relation to low energy buildings.
- 2 Systematic data sourcing, acquisition and evaluation to formulate arguments.
- 3 The ability to construct research hypotheses and arguments.
- 4 The ability to independently develop the capacity to conduct research.
- 5 The ability to develop extended reports enhancing their written communications skills.

Method of Assessment

Main assessment methods

Dissertation 15,000 words (100%)

Reassessment methods

Like for like.

Preliminary Reading

Indicative Reading List

Derek Swetnam. (2004). Writing Your Dissertation: A guide to Planning, Preparing and Presenting First Class Work. Oxford: How To Books

Subject related – bibliography to be developed by student with the assistance of relevant supervisors and module related bibliographies.

Pre-requisites

Pre-requisite: all previous programme modules

Synopsis *

Students will work independently to research in-depth a topic of their own choice in the field of sustainable architecture and built environment, to produce a 15,000 word document.

They will need to critically evaluate the state-of-the-art literature and develop the methodology for answering the formulated research questions. The subsequent methodology can vary depending on the selected topic (archives, monitoring, modelling, thermal simulation, etc.)

They will be supported by their tutor, developing their methodology and discussing the research results, but ultimately they will be responsible for the development of the final document.

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AR999	Dissertation:Urban Design					
Version	Campus	Term(s)	Level	Credit (ECTS)	Assessment	Convenor
2	Canterbury	Spring	M	60 (30)	100% Project	
2	Canterbury	Spring	M	60 (30)	100% Coursework	

Contact Hours

Total contact hours: 20 hours

Private study hours: 580 hours

Total study hours: 600 hours

Learning Outcomes

The intended subject specific learning outcomes.

On successfully completing the module students will be able to:

- 1 Have explored and researched a number of architecture and urban design related disciplines including its history and theory, cultural, social, environmental and art studies at the forefront of the academic discipline. They would have recognized the shape and importance of these fields for architecture and urban life and the role they play in urban design.
- 2 Have produced written assignments and oral arguments engaging with the emergence and future development of urban culture within the society.
- 3 Have advanced their ability to creatively analyse, criticise, present and assess architecture and urban design related arguments.
- 4 Have critically researched and designed an innovative urban design project based on original premises and research.
- 5 Have improved their ability to formulate, plan and write an original well supported critical analysis, to organise it around a coherent argument based on theory and empirical evidence.

The intended generic learning outcomes.

On successfully completing the module students will be able to:

- 1 Have developed their written and oral communication and presentation skills, particularly with a view to expressing complex thoughts about the application of methods, concepts and theories used in urban studies and other relevant disciplines.
- 2 Have developed their capacity to conduct research and independent study into theoretical and design aspects of urban studies.
- 3 Have developed their ability to construct and evaluate arguments.
- 4 Have reflected on their own learning, planned their use of time, and identified appropriate directions for further study, encouraged by the individual supervisor.
- 5 Produce a word-processed dissertation that is of a high scholarly standard in terms of presentation and professionalism.
- 6 Effectively research using the Library, archives and (as appropriate) the Internet, recognising their associated problems/benefits [Related to Programme Learning Outcomes D3].

Method of Assessment

Main assessment methods

Dissertation (100%)

Reassessment methods

Like for like

Preliminary Reading

Indicative Reading List

Subject related – bibliography to be developed by student with the assistance of relevant supervisors and module related bibliographies.

Pre-requisites

Pre-requisites: all previous programme modules

Synopsis *

Students are asked to propose and formulate their own dissertation which could include diverse methodological approaches as well as critique of urban design. Depending on their subject, students undertake the study of specific urban contexts, archives or the interpretation of textual and visual materials, the visualisation of parametric data and formulation of results. The commitment is to develop new methodologies that challenge the boundaries of research in urban design.

The dissertation will normally be 10,000-15,000 words long and will include necessary visual material and where appropriate new urban design proposals.