Module Title: Integrated design Project 2 (IDP 2)	Module Code: AR7403 Level: 7 Credit: 30 ECTS credit: 15	Module Leader: Trish Andrews Additional Tutors: John Carter, Pat Borer, David Lea, Zoe Quick, Gwyn Stacey and visiting tutors and lecturers from the professions
Pre-requisite: None		Pre-cursor: None
Co-requisite: None		Excluded combinations: None
Is this module part of the Skills Curriculum? No		University-wide option: No

Location of delivery: Centre for Alternative Technology

Main aim(s) of the module:

This module introduces students to the urban dimension of the built environment and the relationship between settlement forms and the lifestyles within them and their impact on the sustainability of the planet. The module also requires students in groups to research the development context for a sustainable development at a settlement scale and develop a development brief informed by socio-economic and environmental research of the development area. Consideration will be required of the resilience, adaptability and sustainability of the community in relation to climate change and other environmental challenges. Based on the brief developed students in groups will develop a masterplan that addresses the needs of the locality and helps create a sustainable community. Then individually students will develop one intervention within the masterplan and develop it in detail with consideration of construction and environmental design.

Main topics of study:

- Introduction to the philosophy, theories and key concepts underpinning the principles of sustainable development and sustainability in relation to the built environment within the natural world.
- Settlement form and sustainability and how these are interrelated
- Community dimension of sustainability in relation to socio-economic aspects, health and wellbeing and quality of life in relation to the built environment
- Environmental sustainability of settlement developments including transport impacts, materials use and waste generation, energy demand and generation, impact of climate on the built form, water resources and pollution, and biodiversity and its relation to the built environment.
- Consultation process with development stakeholders and comprehensive site analysis and the way these inform brief design
- Development and critical analysis of development brief
- Developing masterplans in response to contextual needs and briefs
- Construction systems appropriate for a small urban intervention or small building

Learning Outcomes for the module - at the end of this module, students will be able to demonstrate:
(note reference numbers e.g. GC3.1, relate to ARB criteria of accreditation)

Knowledge of
1. the application of appropriate theoretical concepts to studio design projects, demonstrating a reflective and critical approach. (GC2.3)
2. theories of urban design and the planning of communities (GC4.1)
3. the influence of the design and development of cities, past and present on the contemporary built environment (GC4.2)
4. current planning policy and development control legislation, including social, environmental and economic aspects, and the relevance of these to design development (GC4.3)

Understanding of
5. the needs and aspirations of users (GC5.1)

6. the impact of buildings on the environment , and the precepts of sustainable design (GC5.2)
7. the way in which buildings fit into their local context (GC5.3)
8. the potential impact of building projects on existing and proposed communities GC6.3
9. the need to critically review precedents relevant to the function, organisation, and technological strategy of design projects (GC7.1)
10. the need to appraise and prepare building briefs of diverse scales and types to define client and user requirements, and their appropriateness to site and context (GC7.2)
11. the contributions of architects and co-professionals to the formulation of the brief, and the methods of investigation used in its preparation (GC7.3)

Ability to
12. prepare and present a building design project of settlement scale using a range of media, and in response to a brief (GC1.1)
13. understand the constructional and structural systems, the environmental strategies and the regulatory requirements that apply to the design and construction of a design project (GC1.2)
14. 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 (GC1.3)
15. test and evaluate design proposals through a comprehensive range of visual media
16. generate a design proposal informed by architectural issues that are analysed and responded to with originality and where relevant used to test hypotheses and speculations

Transferable skills to
17. present their design proposals clearly and concisely orally
18. prepare clearly written, concise and professional reports

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:

- The module will introduce key topics through lectures and workshops. These will form a basis for the development of the project brief and the design.
- Design workshops and charrettes will provide targeted group and independent learning opportunities to address specific aspects of the design and technology development.
- Individual and group tutorials will support and guide the student learning.
- Independent student work structured around the assignments will enable students to develop their knowledge, understanding and ability to apply it in a project and learn by doing.
- Oral presentations will provide opportunities for students to organise and present ideas.
- Formative and summative feedback will support and guide the learning process.

Reading and resources for the module:

Core
Bentley, Ian (2001) *Responsive environments: a manual for designers*. Architectural Press, London.
Birkeland, J. (2008) *Positive development: From vicious circles to virtuous cycles through built environment design.* London; Sterling, Va.: Earthscan.
Desai, P., Richardson, S. (2002) *Bioregional Solutions for Living on One Planet*. Green Books.
Dobson, A. (2007) *Green Political Thought* (4th edition). Routledge: London
Edwards A.R. (2005) *The sustainability revolution: portrait of a paradigm shift*. New Society Publishers, Gabriola Island.
Fox, W. (2000) *Ethics and the built environment*. London: Routledge.
Hall, P. (2002). *Cities of Tomorrow: An intellectual history of urban planning and design in the twentieth century*. Third Edition. Blackwell: Oxford.
Hamdi, H. (2010) *The Placemaker's Guide to building community*, Earthscan
Sanoff,H., (2000) Community Participation Methods in Design and Planning, John Wiley & Sons.
Sassi, P. (2006) *Strategies for Sustainable Architecture*. London: Taylor and Francis.
Whitehead, M (2014) *Environmental transformations: a geography of the Anthropocene*. Abingdon, Oxon: Routledge.

Williamson, T., Radford, A., Bennetts, H. (2003) *Understanding Sustainable Architecture.* London and New York: Spon Press

Settlement design and community developments

Agyeman, J (2013) *Introducing Just Sustainabilities: Policy, Planning and Practice*. Zed Books, London

Barton, H., Grant,M., Guise, R.(2008), *Shaping Neighbourhoods; A Guide for Health, Sustainability, and Vitality,* 2nd Edition, Spon Press, London and New York.

Barton, H., Thompson, S., Burgess, S. and Grant, M. (2015) *The Routledge Handbook of Planning for Health and Well-Being.* Routledge.

Benton-Short, L. and J. R. Short (2008). *Cities and Nature*. Oxon, Routledge.

Blundell Jones, P., Petrescu, D. and Till, J. (2005) *Architecture and participation*. London: Spon.

Blyth, A. and Worthington, J. (2010) *Managing the brief for better design* (2nd ed. edn.). London: Routledge.

Bridge, G. and Watson, S. (eds). (2011). The New Blackwell Companion to the City. Blackwell: Oxford.

Correa, C. (2000) Housing and urbanisation. London: Thames & Hudson.

Day, C. and Parnell, R. (2002) *Consensus design*. Oxford: Architectural.

Girardet, H. (2008) *Cities people planet: Urban development and climate change* (2nd ed. edn.). Hoboken, N.J.: Wiley ; Chichester : John Wiley.

Girardet, H. (1999)*Creating Sustainable Cities*. Schumacher Briefings, Green Books. Dartington.

Ellin, N. (1999). *Postmodern Urbanism*. Revised Edition. Princeton Architectural Press: New York.

Hall, P. and Falk, N. (2014) *Good cities, better lives: how Europe discovered the lost art of urbanism*, Abingdon: Routledge

Hamdi, H. (2010) *The Placemaker's Guide to building community*, Earthscan

Hazer Sancar, F. (1993) 'An integrative approach to public participation and knowledge generation in design'. *Landscape and Urban Planning*, 26(1-4), pp. 67-88.

Holden, R and Liversedge, J, (2014). *Landscape Architecture: An Introduction*. Laurence King

Khan, L. E. (1973) *Shelter*. Bolinas, Calif.: Shelter Pubs.

Khan, L (2004) *Home Work*. Bolinas, Calif.: Shelter Publications

King, A. (2004). *Spaces of Global Cultures: Architecture Urbanism Identity*. Routledge: London.

Kostof, S. (1992). *The City Assembled: the elements of urban form through history*. London: Thames & Hudson.

Marshall, S. (2011) *Urban Coding and Planning* (Planning, History and Environment Series) Routledge [711.4/URB]

McLaren, D. and J. Agyeman (2015). *Sharing Cities: A Case for Truly Smart and Sustainable Cities*. Cambridge, MA, USA, MIT Press.

Mumford, L. (1966). *The City in History: Its origins, its transformations, and its prospects*. Harmondsworth: Penguin.

Miles, M. and Hall, T. with Borden, I. (eds). (2000). *The City Cultures Reader.* Second Edition. Routledge: London.

Mollison, B.C.(1990) *Permaculture Two: Practical design in town and country in permanent agriculture.* Tagari publications

Pile, S. and Thrift, N. (eds). (2000). *City A–Z*. London: Routledge.

Register, R (2013). *EcoCities: Rebuilding Cities in Balance with Nature*. Revised. New Society Publishers.

Ritchie, A. and Thomas, R. (2009) *Sustainable urban design : An environmental approach* (2nd ed. edn.). London: Taylor & Francis.

Roaf, S., Crichton, D. and Nicol, F. eds. (2009) *Adapting buildings and cities for climate change: A 21st century survival guide.* Oxford: Elsevier Waterman, T. (2015) *The Fundamentals of Landscape Architecture.* Bloomsbury

Sinclair, C. and Stohr, K. (2006) *Design like you give a damn: Architectural responses to humanitarian crisis*. London: Thames & Hudson

Steel, Carolyn (2008), *Hungry City*. Vintage

Swaffield, S. (ed.) (2002). *Theory in Landscape Architecture: A reader*. University of Pennsylvania Press: California.

Toker, Z. (2007) 'Recent trends in community design: The eminence of participation'. *Design Studies*, 28(3), pp. 309-323.

Van der Ryn S. & Calthorpe P. (2008). *Sustainable Communities: A New Design Synthesis for Cities, Suburbs and Towns*. New Society Publishers, Gabriola Island.

Viljeon, A. ed. (2005), *CPULs: Continuous Productive Urban Landscapes*. Architectural Press, Oxford

Wong, T-C., Yuen, B. (editors) (2011). *Eco-city Planning: Policies, Practice and Design*. Springer,Dordrecht.

Economics and politics

Seyfang, G.(2009)*The New Economics Of Sustainable Consumption: Seeds Of Change* (Palgrave MacMillan, Basingstoke 2011

Jackson, T. (ed) (2006) *Earthscan Reader in Sustainable Consumption* (Earthscan, London).

Jackson, T. (2009). *Prosperity without growth? The transition to a sustainable economy*. http://www.sd-commission.org.uk/data/files/publications/prosperity_without_growth_report.pdf. London, Sustainable Development Commission.

North, P. (2009). "Ecolocalisation as an urban strategy in the context of resource constraint and climate change – a (dangerous) new protectionism?" *People, Place & Policy* Online 3(1): http://extra.shu.ac.uk/ppp-online/ecolocalisation-as-an-urban-strategy-in-the-context-of-resource-constraint-and-climate-change-a-dangerous-new-protectionism/.

Scott Cato, M. (2011). *Environment and economy*. Abingdon, Oxon, Routledge.

The New Climate Economy (2014). Better growth, better climate: The New Climate Economy Report. http://2014.newclimateeconomy.report/wp-content/uploads/2014/08/NCE-Global-Report_web.pdf. *London, The Global Commission on the economy and climate.*

Woodin, M. and C. Lucas (2004). *Green alternatives to globalisation: A manifesto*. London, Pluto Press.

Worpole, K. (2000) *Design, economy and the architectural imagination*. London: RIBA Future Studies.

Environmental assessment

Brandon, P. S. and Lombardi, P. L. (2005) *Evaluating sustainable development in the built environment*. Oxford: Blackwell Science.

Chamber, N., Simmons, C., Wackernagel, M.(2000), *Sharing Natures Interest: Ecological Footprints as an Indicator for Sustainability*, Earthscan, London

Konig, H. et al (2010), *A Lifecyle Approach to Buildings; Principles, Calculations, Design Tools.* Detail Green Books, Munich.

Adaptation to climate change

Adger, W.N., Lorenzoni I., and O'Brien K.L., (2010) *Adapting to Climate Change, Thresholds, Values, Governance*, Cambridge University Press, Cambridge.

Adger, W.N., Paavola J., Huq S., and Mace, M.J., (2005) *Fairness in Adaptation to Climate Change*, MIT Press, Cambridge MA.

Ensor J. and Berger R. (2009), *Understanding Climate Change Adaptation, Lessons from community-based approaches*, Practical Action Publishing, Rugby.

Schipper E.L.F., and Burton I., editors. (2008), *The Earthscan Reader on Adaptation to Climate Change*, Earthscan, London.

Also refer to reading lists from other modules

Assessment methods which enable students to demonstrate the learning outcomes for the module:	Weighting:	Learning Outcomes demonstrated
Essay related to community consultation and brief development	Portfolio assessment	2, 3, 4, 5, 8, 10, 11, 18
Technology submission		6, 13
Design portfolio		1, 3, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17

Indicative learning and teaching time (10 hrs per credit):	Activity
1. Student/tutor interaction, some of which may be online: hours 100	Design tutorials, Workshops, Lectures, Seminars, Studio work, Reviews
2. Student learning time: hours 200	Background reading and preparation, Assignment preparation, Design Portfolio, Diary, Studio work
Total hours 300	