GD911-20 Sustainable Urbanisation: from Risk to Resilience

23/24

Department
> Global Sustainable Development

Level
> Taught Postgraduate Level

Module leader
> Jonathan Clarke

Credit value
> 20

Module duration
> 10 weeks

Assessment
> 100% coursework

Study location
> University of Warwick main campus, Coventry

Description

Introductory description

Over the last 20 years, the concept of resilience has emerged as a key consideration for urban theorists, academics and policy makers, whilst the term is also an important source of discourse in a diverse range of related fields (Coaffee, 2013, Davoudi, 2012). Globally, this period has seen significant shock events, disturbance and volatility, including the Tohuku earthquake or the impact of Hurricane Sandy upon New York, as well as the more recent challenges presented by the COVID-19 virus; these events illustrate the vulnerability and potential weakness within the design, management and organisation of contemporary cities, but perhaps also illuminate how we might enhance these critical urban systems in the future.

In parallel to these events, the significance of cities in the 21st Century continues to grow, most notably as a result of the rising global population, concentrated within urban areas; in 1913 only 10% of the world's population lived in cities, this had risen to 50% by 2013 and it is predicted that in 2050, 75% of an expanded global population will be urban (UN-HABITAT, 2011; UNISDR, 2012). These trends amplify the pressure upon cities to keep citizens safe, healthy, prosperous and well-informed. Whilst urban theorists promote cities agglomeration of innovation, creativity and economic resources, which are key to wider economic success (Glaeser, 2011; Florida, 2002); a variety of threats to life, property and society also converge upon the contemporary city, by virtue of their accumulation of population and critical infrastructure, as well as a lack of foresight in

previous developmental regimes (Beck, 1992; Coaffee, 2009; Edwards, 2009; Fisher, 2012). It is within this context that the often loosely-defined notion of resilience can be seen as the solution to a range of contemporary concerns and complex problems; from disaster risk reduction, individual wellbeing, climate change adaption, to the generational challenge of sustainable development. Accordingly, the module uses the twin concepts of risk and resilience to tackle the major urban challenges through a research-led learning experience, with students working alongside urban practitioners, interdisciplinary researchers and colleagues from the SfCFs, as part of an active learning community.

Module aims

The module aims to engage students in active research, based upon weekly urban case studies, with input from practitioners. Run in weekly 2-hour workshops which include elements of lecture, seminar, in-class presentation and peer-review, with the aim of producing implementable policies for urban transformation, with a 3,000 word individual report.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

The module structure is based upon current state-of the-art research and practice within the fields of urban resilience and the stages of the resilience and recovery cycle; prepare/prevent/protect, mitigate/absorb/adapt, respond/recover/learn and transform which will be used to structure weekly sessions. Weeks 1 and 2 will introduce the concepts of risk and resilience, through the work of Ulrich Beck's 'Risk Society and Antony Gidden's ideas of globalisation and 'manufactured risk', before moving on to consider their relevance to the contemporary urban challenges, including climate change and sustainable development (also serving as an introduction to GSD). Notably, articulating how risk in unequally distributed within industrialized society and increasingly widened by stress events. Key to this is the importance of learning from on-going urban practice, including engagement with practitioners and researchers from different academic disciplines, using this experience to examine case studies and carry out risk or sector specific research. The module will also consider the usefulness of urban resilience frameworks and practice-led guidance. Subsequent weeks will follow the resilience cycle of system preparation, maintaining function, recovery and transformation, with weekly case studies, practitioner engagement and students contributing week-by-week research presentations towards a group research portfolio (2,000 word individual input), which will be used to formulate individual policies for urban transformation (3,000 word research paper). The module will conclude with reflections on how concepts or risk and resilience can be used to promote greater equality and sustainable development, through understandings or risk and appropriate resilience policies.

Learning outcomes

By the end of the module, students should be able to:

- Formulate complex assessment criteria for understanding urban context and potential risks
- Explore how urban communities can mitigate, absorb and adapt to disruptive challenge
- Reflect upon past practice, as a means to stimulate recovery and response actions, with

interdisciplinary learning
- Promote transformational policy strategies for cities and urban regions

Indicative reading list

Beck, U. (1992) 'From industrial society to the risk society: questions of survival, social structure and ecological enlightenment.' Theory, Culture and Society, 9(1), p.97-123.

Coaffee, J. (2017). Terrorism, risk and the city: The making of a contemporary urban landscape. Routledge.

Coaffee, J. and Clarke, J.R.L. (2017) "Realising Critical Infrastructure Resilience". In: Linkov, I. and Palma-Oliveira, J.M. (eds.) 'Resilience and Risk.' Springer, NATO Science Series.Clarke, J.R.L. (2016) "From Maladaption to Adaption: A Resilient Urban Planning Paradigm" In: Chandler, D. and Coaffee, J. (eds.) 'The Routledge Handbook of International Resilience' Routledge, London.

Davis, M. (2006). Planet of slums. Verso.

Fregonese, S. (2019) 'War and the City: Urban Geopolitics in Lebanon', Bloomsbury, London.

Giddens, A. (2002) Runaway world: how globalisation is reshaping our lives. New Ed. Profile, London

McGuirk, J. (2014). Radical cities: Across Latin America in search of a new architecture. Verso Trade.

Nicholls, et al. (2007) "ranking of the world's cities most exposed to coastal flooding today and in the future" OECD Environment Working Paper No. 1 (ENV/WKP(2007)1)

Townsend, A. M. (2013). Smart cities: Big data, civic hackers, and the quest for a new utopia. WW Norton & Company.

Ulbrich, P., Porto de Albuquerque, J., & Coaffee, J. (2019). The impact of urban inequalities on monitoring progress towards the sustainable development goals: Methodological considerations. ISPRS International Journal of Geo-Information, 8(1), 6.

Research element

Healey & Jenkins (2009) propose that Research-led-teaching design should consider four discrete opportunities. This module has been designed to include three of these opportunities.

Research-led learning, where the module syllabus is developed from current research in relevant fields, being based on contemporary and seminal, peer reviewed and other high quality research literature. As such, all knowledge for student engagement will be consciously and specifically chosen for its merits in reference to broader academic understanding.

Research-tutored learning, where students engage actively in discussing high quality, contemporary and seminal research literature. This module will involve the critical discussion of prominent literature on the various themes.

Research-orientated learning, where students develop methodological skills. In this module, students will be introduced to one methodological approach per unit of study. This will include the practitioner creation of urban design briefs; the creation and analysis of photographs; the research and creation of lived experience accounts; undertaking infrastructural assessments; and urban visioning.

Research-based learning, where student use developing methodological skills to create original knowledge of their own. This module will provide students with the opportunity to create new primary and analytical knowledge via the opportunities to various outputs for assembly into an overall assessment portfolio: including through the creation of a design brief, a photo essay through production of photos, media reflections, lived experience accounts, infrastructural assessments and a future vision document.

Interdisciplinary

The syllabus is inherently inter-disciplinary in nature, as students learn to observe and understand cities from the perspectives of urban geography, political economy and disaster risk management.

International

Weekly sessions examine international case studies.

Subject specific skills

An inclusive and sensitive communication style that engenders trust during group discussions
Appreciation of risk and resilience
Commitment to developing sustainable solutions
Inspires and motivates others to invest in sustainability vision through influential communication
Innovative and creative approach to problem-solving to develop sustainable solutions

Transferable skills

Personal resilience, adaptability and drive
Planning and organising
Problem solving and decision making
Researching and analysing

Study

Study time

Type	Required
Seminars	10 sessions of 2 hours (9%)
Private study	100 hours (44%)
Assessment	105 hours (47%)
Total	225 hours

Private study description

Reading and class prep

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Assessment group A1

	Weighting	Study time
Urban Transformations Policy	50%	48 hours
Group Research Portfolio	25%	32 hours
Weekly reflections	25%	25 hours

Students are asked to respond on a weekly basis to the readings and research that they done in preparation for the seminar topic. 5 of the responses will be submitted for assessment (3 x 500 word pieces).

Feedback on assessment

A written summary and annotations on the portfolio document, provided on Tabula. There will be informal feedback for the weekly reflections, which aim to stimulate student's personal development.

Availability

Courses

This module is Option list A for:

- Year 1 of TIPA-LA9Z Postgraduate Taught Community, Engagement and Belonging (MASc)

This module is Option list B for:

- Year 1 of TGDA-L801 Postgraduate Taught Global Sustainable Development