

Theory of architecture and urbanism

Titulaire

Ahmed Zaib KHAN MAHSUD (Coordonnateur)

Mnémonique du cours

ARCH-H502

Crédits ECTS

4 crédits

Langue(s) d'enseignement

Anglais

Période du cours

Premier quadrimestre

Campus

Solbosch

Contenu du cours

The content of this course comprises a) a synthetic overview of the evolution and current state of 'theory' in the field of (sustainable) architecture and urbanism; b) architectural ideas and urbanistic concepts underlying the spatial articulations, visions and models of the 'Cities of the Future' (COF, a selected set); and c) contemporary research on Brussels. This content is presented and explained in a thematic way. A particular focus is given in the course to contemporary themes (such as, sustainability, research by design, digitalization, utopianism, urbanisms, spatial quality, critical regionalism, place-making, etc.) and the link between theory and practice. Ex-cathedra "lecture presentations" and a selected set of key texts on these aspects are provided and discussed in the class ("theory seminars"). The course places a particular emphasis on taking stock of the recent proliferating efforts at imagining the future of Brussels and its sustainable regional development plan. These insights are further deepened through specialist guest lectures, the students' reading and writing exercises, and the "research by design" sessions, which are valorized in the form of a scientific paper as the final outcome of the course together with an oral exam.

Objectifs (et/ou acquis d'apprentissages spécifiques)

With the ambition of bridging the educational trajectories of architectural sciences, urbanism and design, this advanced course in the theory of architecture and urbanism aims to develop the capacity of students for critical reflections and integrative design thinking in order to comprehend the multi-scalar complexity of our built environment, and critically conceive and appraise / reflect upon future transformations (sustainable architectural and urban projects).

The general OBJECTIVES of the course include:

- > Acquaint students with a synthetic overview of the main currents of thought and paradigms that shape the contemporary theories of architecture and urbanism.
- > Offer thematic insights on 'cities of the future' highlighting integrative thinking and the link between theory and practice
- > Develop a critical understanding of the contemporary research and main themes in the theories of (sustainable) architecture and urbanism
- > Enhance the capacity for integrative design (based research, thinking and reasoning) for imagining alternative and more sustainable architectural and urban futures (with a particular focus on Brussels)
- > Training in scientific research, critical reading and analysis of texts and projects, and writing a scientific paper

Méthodes d'enseignement et activités d'apprentissages

The course methodology comprises the following teaching and learning activities:

- > 'Ex cathedra' lectures (2h x 6 = 12 h),
- > 'Theory seminars' (4h x 6 = 24 h; including moderated peer-discussion and reflections on texts, and writing exercises),
- > 'Research by design' (RbD) sessions (3h x 4 = 12 h; for the final paper), and
- > Invited guest lectures

A series of 'ex-cathedra' lectures provide a paradigmatic overview of theories of architecture and urbanism with a focus on integrative design thinking and COF. Specifically designed sessions are dedicated to 'Theory seminar' – to improve the reading, writing, critical analysis and reflections skills of the students - in which key selected texts and projects are discussed and peer-reviewed. Special 'guest lectures' acquaint students with contemporary research and practices, in particular, related to the future of Brussels. The RbD sessions are dedicated to analysing selected projects (architectural – urban; international - local) through design based research, thinking and reasoning, which are valorised as a final paper assignment in the form of a 'scientific paper'.

Contribution au profil d'enseignement

This teaching unit contributes to the following (**program specific learning outcomes** / competences:

- > in-depth knowledge and understanding of architectural sciences and sustainable design methods and theories with the specificity of their application to complex architectural and urban design projects
- > communicate design concepts and projects effectively using state-of-the-art physical and digital representation techniques (drawings, images, renderings, and three-dimensional models)

- expand the scale of the design problem not only in space, but also in time – a crucial dimension of sustainable design – and to comprehend the multi-scalar effects of design interventions.
- critically analyse and reflect on the historical and theoretical context of architectural and urban projects
- an integrative attitude towards using issues of sustainability, ecology and energy as catalyst for creatively rethinking conventional notions of enclosure, tectonics, and programme
- design skills and research capabilities to address spatial and temporal complexity in the development of architectural and urban projects that ensures sustainable functioning of the built environment

The **general (Bruface) learning outcomes** / competencies that this course contributes to include the following:

- correctly report on research or design results in the form of a technical report or in the form of a scientific paper
- present and defend results in a scientifically sound way, using contemporary communication tools, for a national as well as for an international professional or lay audience
- collaborate in a (multidisciplinary) team
- a critical attitude towards one's own results and those of others

Références, bibliographie et lectures recommandées

A. Krista Sykes, ed., *Constructing a New Agenda: Architectural Theory 1993-2009* (New York: Princeton Architectural Press, 2010).

Ahmed Z. Khan and Karen Allacker, eds., *Architecture and Sustainability: Critical Perspectives for Integrated Design* (Leuven and Den Haag: ACCO Press, 2015).

Bruno De Meulder and Karina Van Herck, eds., *Vacant City: Brussels' Mont des Arts Reconsidered* (Rotterdam: NAI Publishers, 2000).

Carola Hein, *The Capital of Europe: Architecture and Urban Planning for the European Union* (Westport (CT): Greenwood/Praeger, 2004).

Charles Waldheim, ed., *The Landscape Urbanism Reader* (New York: Princeton Architectural Press, 2006).

Donna Goodman, *A History of the Future* (New York: The Monacelli Press, 2008).

David Pinder, *Visions of the City* (Edinburgh: Edinburgh University Press, 2005).

Harry F. Mallgrave and David Goodman, *An introduction to Architectural Theory: 1968 to the present* (Wiley-Blackwell, 2011).

K. Michael Hays, ed., *Architecture Theory Since 1968* (Cambridge, MA: MIT Press, 1998).

Kate Nesbitt, ed., *Theorizing a New Agenda for Architecture: An Anthology of Architectural Theory 1965-1995* (New York: Princeton Architectural Press, 1996).

Korydon Smith, ed., *Introducing Architectural Theory: Debating a discipline* (New York and London: Routledge, 2012).

Mohsen Mostafavi and Gareth Doherty, eds., *Ecological Urbanism* (Lars Müller, 1995).

Peter Cathorpe, *Urbanism in Age of Climate Change* (Washington DC: Island Press, 2011).

Peter Hall, *Cities of Tomorrow* (Oxford and Massachusetts: Blackwell, 1999).

Pier Vittorio Aurelli et al., eds., *Brussels – A Manifesto: Towards the Capital of Europe* (Rotterdam: NAI Publisher, 2007).

Rem Koolhaas and Bruce Mau, *S, M, L, XL* (New York: Monacelli Press, 1995).

Robert Fishman, *Urban Utopias in the Twentieth Century: Ebenezer Howard, Frank Lloyd Wright, Le Corbusier* (Cambridge (Mass.): The MIT Press, 1982).

Tigran Haas, ed., *Sustainable Urbanism and Beyond: Rethinking Cities for the Future* (New York: Rizzoli, 2012).

Vincent B. Canizaro, ed., *Architectural Regionalism: Collected Writings on Place, Identity, Modernity, and Tradition* (New York: Princeton Architectural Press, 2007).

William McDonough and Michael Braungart, *Cradle to Cradle: Remaking the Way We Make Things* (New York: North Point Press, 2002).

Support(s) de cours

Université virtuelle

Autres renseignements

Lieu(x) d'enseignement

Solbosch

Contact(s)

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Méthode(s) d'évaluation

Rapport écrit, Travail de groupe, Présentation orale et Examen oral

Méthode(s) d'évaluation (complément)

In order to ensure integrated learning, students are assessed both individually and in groups, as well as in writing and orally. Students are assessed in groups through the thematic writing exercises and the final paper, which together counts for 70%. Active participation is expected in the peer-review process and presentations, which underpin the development of these exercises and the final paper. For the individual level assessment, a final exam (oral, based on the final paper and the content of the course) is held that accounts for 30%.

Importance of the various learning activities in the grading system *

- Final paper (including active participation in the theory seminar, thematic writing exercises, and research by design sessions) – 70%

- Final exam (oral) – 30%

For the 2nd sit exam (June/August): For unjustified absence from group assignments during the semester and regular exam, there is no opportunity offered for the 2nd exam in June or September of the same year (Article 61, 28, 29 & 30 of the ULB exams and



juries regulation). However, if a valid, legitimate and convincing reason(s) are presented in writing (with proofs) a 2nd sit can be arranged for the student, at the titular's discretion. Such students will have to do the 2nd sit exam individually. First, they will have to make an appointment with the titular soon after the deliberation to discuss their eligibility and define a date for final exam (written 60%) followed by a Q&A (oral 40%).

Construction de la note (en ce compris, la pondération des notes partielles)

The students work in groups during the 'Theory' seminars and the 'research by design' (RbD) sessions, including seminar exercises and the final paper assignment:

- > **Theory Seminar Exercises (TSE), RbD sessions and the final paper – 70%:** TS requires after reading, moderated discussion and peer-review of the provided text for each thematically organised seminar. RBD sessions and final paper: from the provided list of architects/urbanists and projects, the groups present their selection in the first RbD session, including the identification of primary and secondary sources. The next two sessions are dedicated to in-depth analysis and the articulation of the main thematic position, which is supported by the input from seminar exercises. The first full draft paper is presented in the last session for peer-review and feed-back. The submission for the final paper is due at the notified date (usually 10 days before the exam). The final paper is a critical text+images (4000-6000 words) in which a thematic (design) argument is scientifically developed, and substantiated

through the analysis of the selected work, and complemented by further research in literature on that specific thematic.

- > **Final exam - 30%:** Oral, based on the final paper and the content of the course, is held that accounts for 30%.

Langue(s) d'évaluation principale(s)

Anglais

Programmes

Programmes proposant ce cours à l'école polytechnique de Bruxelles

MA-IRAR | **Master : ingénieur civil architecte** | finalité Spécialisée/ bloc 2 et MS-URDE | **Master de spécialisation en urbanisme et aménagement du territoire** | bloc U

Programmes proposant ce cours à la faculté d'Architecture La Cambre Horta

MS-URDE | **Master de spécialisation en urbanisme et aménagement du territoire** | bloc U

Programmes proposant ce cours à la faculté des Sciences

MA-GEOG | **Master en sciences géographiques, orientation générale** | finalité Urban studies/bloc 1 et finalité Urban studies/bloc 2