Contemporary cities are undergirded by a diverse range of infrastructure networks – energy, water, wastewater, transportation, and communications. These networks are traditionally defined by their technical and economic characteristics but they also have significant (and often unacknowledged) spatial, political, and cultural implications. Today, the upgrading and reimagining of infrastructure services are central to notions of sustainability, resilience, economic prosperity, and improved quality of life. This course unit provides an opportunity for students to study the coevolution of technology and society using theories and case studies from urban history, science & technology studies, urban geography, planning, and architecture. The first half of the unit introduces theoretical ideas about technology and infrastructure, and then applies these ideas to interpret the historical evolution of infrastructure networks from the 19c to the present. The second half addresses contemporary case studies of urban infrastructure to explore how society is bound up in the development and management of technological networks. The knowledge and skills taught in this course unit will allow students to develop a critical perspective on technology and society as it relates to cities of the past, present, and future.
Aims
- To examine the evolution of urban infrastructure from the nineteenth century to the present
- To theorise the spatial, political, and cultural aspects of technological development and change
- To compare and contrast research methods for studying urban infrastructure networks
- To develop skills in group discussion and individual reading, reflection, and writing

Intended learning outcomes
Through the successful completion of this course unit, students should:
- Be conversant in a range of theories addressing technology, society, and urban development
- Recognise and appreciate the relational and spatial aspects of urban infrastructure development
- Have the ability to apply analytical skills to critically assess the co-evolution of infrastructure networks

Skills and employability
During this course unit, students will be encouraged to develop the following skills and abilities:
- Critical thinking, reflection and self-awareness
- Comparative assessment of contrasting theories and explanations
- Articulating and structuring of oral and written arguments
- Interpersonal and group working skills
- Self-directed learning and responsible time management
- Heightened awareness of your responsibilities as a global citizen

Course structure
30 January  Introduction
6 February  Sociotechnical study of cities
13 February  Defining infrastructure
20 February  The rise of large technical systems and the making of the modern metropolis
27 February  Splintering urbanism and the erosion of the infrastructure ideal
6 March  [Reading week]
13 March  Politics and planning of urban service provision
20 March  Activism and infrastructure – the role of civil society in changing networks
27 March  Energy consumption and domestic practices
3 April  Future cities
10-24 April  [Spring break]
1 May  Conclusions and review

Teaching Methods and e-learning
This unit includes ten two-hour sessions with lectures and discussion. Geography and planning students are required to attend an additional one-hour seminar (architecture students are welcome but not required to attend the seminar). A high level of participation is required from all students throughout the course. Reading prior to lectures is compulsory. Course materials including assigned and suggested readings, a catalogue of online resources, lecture slides, video clips, and information on the assessment will be posted on Blackboard (geography and planning students) and Moodle (architecture students).
**Assessment**
The unit is weighted at 20 credits for geography and planning students and the assessment consists of a 2500-word essay (33%) and a two-hour exam paper (67%). For architecture students, the assessment is weighted at 15 credits and the coursework consists of a 3000-word essay. More details on the assessments including due dates will be provided in class and on Blackboard and Moodle.

**Feedback**
- Verbal feedback through Q&A, discussion and interactive activities in lectures
- Verbal feedback on any course unit issues during consultation hours
- Written feedback on the coursework assessment

**Selected Readings**


**Key Journals**

*Built Environment*
*Environment and Planning A*
*Geoforum*
*International Journal of Urban and Regional Research*
*Journal of Urban Technology*
*Science Studies*
*Science, Technology and Human Values*
*Technology Analysis and Strategic Management*
*Urban Studies*