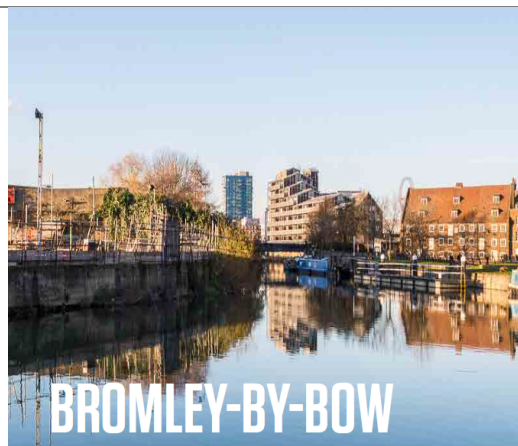




**Semester
1**

**Architectural
and Urban
Project****ECTS
10.0
2026/2027**

Department offering the course

**Department of Urban Transformation Department of
Residential Architecture**

Teaching Staff:

dr hab. inż. arch. J. Martyniuk – Pęczek, prof. PG

dr inż. arch. M. Gerigk

Short description of the course topic:

The course focuses on the relationship between **architecture, urban design, climate and energy**, with particular emphasis on designing built environments that are resilient to climate change.

The design studio will focus on a real urban context in **London – the London Borough of Tower Hamlets, in the Bromley-by-Bow area**. Students will investigate the site and develop climate-responsive architectural and urban design proposals addressing its current and future challenges.

The programme explores the impact of building form and urban morphology **on** microclimate, thermal comfort, air quality, urban ventilation, daylight access and energy performance. It introduces passive design strategies, renewable energy systems, blue-green infrastructure, sustainable mobility, as well as solutions for mitigating the urban heat island effect and increasing urban resilience.

The course combines workshops with representatives of London authorities, meetings with practitioners, case-study analysis, site-based research and design studio work. Students will use analytical and simulation tools to assess local climatic conditions, solar access, daylight, urban ventilation and microclimate and to support evidence-based design decisions.

An optional study trip to London may be organised, providing an opportunity for site visits, fieldwork and direct engagement with the local urban context.

The final outcome will be an individual architectural **and** urban design proposal integrating climate-responsive, energy-efficient and environmental strategies. Assessment will be based on the design project, analytical and simulation exercises, active participation in workshops and seminars, and the final presentation and defence of the project.

Course content / class schedule:

Weeks 1–2 | Introduction & Site Context

Weeks 3–4 | Site & Climate Analysis

Weeks 5–6 | Simulation & Diagnosis

Weeks 7–8 | Design Strategy

Weeks 9–11 | Design Development

Weeks 12–13 | Integration & Evaluation

Weeks 14–15 | Final Project

Optional component: **Study trip to London** – site visits, fieldwork, meetings and workshops with local stakeholders and practitioners.
