

**Course name: Urban Infrastructure**

Course code: YCWURIFMNF

Hours per week: 1 lecture / 2 practice / 0 laboratory; F: Final mark / 4 credits

Department of Building Informatics, Geodesy and Mathematics

In charge: Ass. Prof. Klára Éva Macsinka

For students of MSc in Architecture

Pre-requirements for Erasmus students: 1 semester Urban Design/Studies

**OBJECTIVE OF THE COURSE:**

The subject is to introduce the students to the basic notions, the elements and the operational principles of urban infrastructure, including the catchment of urban centres, too. Transport, water and energy supply, their management organisations and the network of open spaces and their relationships, respectively, will be discussed. After reviewing the basics, the processes of their development are dealt with.

**14 WEEKS SCHEDULE:**

1. Urban infrastructure - an introduction. Handing out assignments for the semester. Discussion of common knowledge and thinking of urban infrastructure.
2. LandUse and TRansport (LUTR) – interconnections Discussion of case studies. Consultation of the chosen topic of the assignment.
3. Roads, networks, traffic control. Discussion about planned cities and their networks.
4. Public transportation. Discussion of case studies. Consultation.
5. Parking management. Planning a sustainable parking system in a middle-size city. Consultation.
6. Sustainable transportation Application of SUMP principles in a city. Consultation.
7. Community spaces and transportation spaces. Site visit of a complex square.
8. Master Plans and transportation networks Discussion of case studies. Consultation.
9. Accessibility of buildings Discussion of case studies. Consultation.
10. Smart cities. Presentation of individual work of students
11. Public utilities 1. (Water supply, drainage) Presentation of individual work of students
12. Public utilities 2. (Energy networks). Discussion of case studies. Presentation of individual work of students
13. Test. Consultation.

Assessment:

Final mark

