

BUILDING SERVICES NETWORKS

(Specialization LANDSCAPING, 4th Year of study, 2th Semester)

Credit value (ECTS): 3

Specialized discipline (mandatory)

Course holder:

Assist. dr. arch. Grecu Codrina

Discipline objectives (course and practical works)

- J Students to use correctly the technical notions as well as the theoretical concepts in the field of public networks;
- J Students to develop their ability to analyze and make decisions in the preparation of small landscaping projects that include the proper use of the necessary building networks;
- J Students should be able to analyze and find appropriate solutions to problems specific to the landscape infrastructure design of urban infrastructure.

Contents (syllabus)

Course (chapters/subchapters)
1. Generalities regarding the technical-urban equipping of the localities. Importance, purpose, types of civil services networks, urban and territorial sites.
2. Constructive and regulatory norms regarding the framing of public technical services networks in the general planning plan (PUG) of a locality.
3. The interdisciplinary character and the role of the public technical services networks in the functioning of a locality, as well as in its development level.
4. Coordination of the public technical networks. Systematization of underground galleries. Conditions of laying and execution of the public technical services networks.
5. The role of the required urban services networks in the landscaping arrangements and their integration in the general networks system of the locality. Classifications of the types of installations used in the landscape.
6. Relation of urban pedestrian traffic flows with the location of the municipal services networks (water, gas, electricity, telecommunications, etc.)
7. Water and sewerage network in the landscape. The aesthetic and utilitarian role of waters. Collection of domestic and rainwater. Slope drainage systems.
8. Types of landscaping with water and water supply, distribution and pumping facilities for ponds and fountains, water gardens, canals, waterfalls, etc.
9. Electricity networks in landscaping. The role and types of installations and luminaires specific to the public and private domain.
10. Types of installations in landscaping that have utility purpose. Lakes and ponds aeration systems. Watering / irrigation systems. Fire extinguishing systems. Use of gas installations in the landscaping.

Practical works
1. Analysis of the plans of a PUZ (Zonal Urbanistic Plan) of a locality: The plan of urban regulations and the Plan of urban services network regulations.
2. Analysis of a landscape design technical cervises project.
3. Designing a decorative basin with the indication of the necessary technical-municipal installations. Paper planes formed A2, comprising a site plane 1:100 scale and a representative section at 1:20 scale.

4. Analysis and drawing of a project of irrigation system with sprinklers for an individual garden project, indicating the necessary installations and connection to the municipal services networks. Paper planes formed A2, comprising a site plan with the positioning of the network of pipes and sprinklers, 1 detail section through the distribution center, scale 1:100.

Bibliography

1. ANGELESCU M., 1996 - *Rețele edilitare urbane*, EDP, Bucure ti;
 2. Cotorobai Victoria, 2013 - *Lucrări tehnico edilitare. Note de Curs*, FACULTATEA DE ARHITECTUR "G.M.CANTACUZINO";
 3. Dimache A, M nescu M., 2006 - *Rețele edilitare*, Ed. Matrix Rom, Bucure ti
 4. Mira N. (Coord. prof. univ. dr. ing.) & all, 2010 - *Enciclopedia tehnică de instalații. Manualul de instalații - Sisteme de Iluminat, instalații electrice, și de automatizare*, Ediția a-II-a, Asociația inginerilor de instalații din Romania, Editura ARTECNO, București;
 5. Mateescu T., 1985 - *Lucrări tehnico edilitare*, Editura Gheorghe Asachi, Ia i;
 6. MATEESCU T., Burlacu A., 2012 - *Amenajari și sisteme de utilități urbane*, Ed. Matrix Rom, Bucure ti;
 7. Moroldo D., 1999 - *Iluminatul urban. Aspecte fundamentale, soluții și calculul sistemelor de iluminat*, Ed. Matrix Rom, Bucure ti
 8. TURMA J. 2011 - *Sisteme de irigații*, Ed. Casa,
 9. Vintil . (Coord. prof. univ. dr. ing.) & all, 2010 - *Enciclopedia tehnică de instalații. Manualul de instalații - Instalații sanitare*, Ediția a-II-a, Asociația inginerilor de instalații din Romania Editura ARTECNO, Bucure ti
 10. ***, 2002 - *Irigatii rezidențiale automatizate. Ghid de proiectare*; Hunter Industries Incorporated - The Irrigation Innovators
 11. ***, SR 8591 Septembrie 1997 - *Rețele edilitare subterane. Condiții de amplasare*, Institutul român de standardizare IRS, București, Ediția a 4-a
- *** Standarde i normative cu caracter obligatoriu, experimental i de recomandare.

Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Course	Exam	40%
	Course presence	10%
Practical works	Practical works map	20%
	Practical works presence	20%

Contact

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