Course Name:
Hydraulic System Design

Course Number:
20261

Credit:
3

Course Content (outline):

- Ponds
    - Dewatering of dams, canals, rivers and related facilities
- The valves
    - Types of valves and their applications, hydraulic characteristics of valves and screening systems design
- Free surface transmission systems
    - Design and construction of canals, excavation and embankment and route selection, branching and deformation of channels, water distribution facilities, designing the conversion and canal's shape
- Design of water distribution systems
    - Evaluation of water transfer projects and determination of design flow, water demand, planning and design of main distribution networks, water losses in canals, canal coverage
- Transitional control structures
    - Familiarity with various types of transitional structures, inverted siphons, culverts, sloping surfaces and relaxation ponds

References:

- Manring, Noah. Hydraulic control systems. New York: Wiley, 2005.
- Mays, Larry W., ed. Hydraulic design handbook. McGraw-Hill Professional Publishing, 1999.