Course Name:
Water Resources Quality Management

Course Number:
20646

Credit:
3

Course Content (outline):

- Familiarity with the concept of water quality management, qualitative indicators and beneficial use of water resources
- Reactions, reaction rate and hydraulic performance of the reactors
- Finding the process of salinity, the relationship between quality and quantity
- Hydrodynamic of pollution dispersion
- Variation of dissolved oxygen (DO) in the river
- Modeling of heat changes in the river
- Hydrodynamic of the reservoirs
- Modeling the thermal stratification in reservoirs and lakes
- Variation of dissolved oxygen (DO)
- Eutrophication
- Modeling and qualitative models in basin scale
- Determination of the environmental needs of rivers and wetlands
- Application of satellite images in determination of water quality

References:

- “Modeling and management of water resources quality”, M. Tajrishi, Sharif UP. 1387.
- “Course notes (Pahmphlet)”.
- Selected papers from national and international journals (ewrc. Sharif.edu/course).