

Wastewater Distribution Networks

1. **Course number and name:** 020ASSGS4 Wastewater Distribution Networks
2. **Credits and contact hours:** 2 ECTS credits, 1x1.25 hours
3. **Name(s) of instructor(s) or course coordinator(s):** Cynthia ANDRAOS
4. **Instructional Materials:**
 - Water Supply and Sewerage, McGraw-hill International Editions – Civil Engineering Series 6th edition
 - Applied Hydrology, Ven Te Chow, David R. Maidment and Lawrence W. Mays.
 - Hydraulics of Open Channel flow, Richard H. French.
 - Instructor’s Class Notes
5. **Specific course information**
 - a. **Catalog description:** Design and sizing of urban wastewater collection system.
 - b. **Prerequisites or co-requisites:** 020HYDGS3 Hydraulics
 - c. **Required:** Required major course for Water and Environment Specialty students.
6. **Educational objectives for the course**
 - a. **Specific outcomes of instruction:**
 - Introduce the students to the storm and sewer collection system.
 - Assessment of existing collection system and proposing upgrades where needed.
 - Phasing the project according to estimated construction cost/budget.
 - b. **PI addressed by the course:**

PI	1.1	1.2	1.3	2.1	2.2	3.2
Covered	yes	yes	yes	yes	yes	yes
Assessed						

7. **Brief list of topics to be covered:**
 1. Introduction (1.25 hours)
 2. Open Channel Flow - Manning-Strickler (3.75 hours)
 3. Sewer collection system – Sewer production (1.25 hours)
 4. Sewer collection system – Sizing of the network (2.5 hours)
 5. Storm water collection system - Rational method - Time of concentration - IDF curve (6.25 hours)
 6. Storm water collection system - Sizing of the network (2.5 hours)