SAN JUAN COLLEGE
Success Matters

IPOP-2710 3 CREDITS APPLICATIONS OF MUNICIPAL WATER TREATMENT OPERATIONS

SYLLABUS

CATALOG DESCRIPTION:

This course is an extension of the Municipal Water Treating Operations class for those students interested in obtaining the hands on skills associated with this field. It includes operating equipment such as pumps, valves, heat exchangers, reactors, and instrumentation. Unit startups, normal operations, taking readings, sampling, troubleshooting, and safe shutdowns are all covered. Unit modules run include water ion exchange, water distillation, and wastewater treatment. Also included is water analysis such as sulfate, and calcium and total hardness.

Prerequisites: Faculty Approval, Math 1170 or higher

Semester Offered: Fall and Spring

Common Student Learning Outcomes

Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in…

BROAD AND SPECIALIZED LEARNING
Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

CRITICAL THINKING
Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

CULTURAL AND CIVIC ENGAGEMENT
Students will act purposefully, reflectively, and ethically in diverse and complex environments.

EFFECTIVE COMMUNICATION
Students will exchange ideas and information with clarity in multiple contexts.

INFORMATION LITERACY
Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

INTEGRATING TECHNOLOGIES
Students will demonstrate fluency in the application and use of technologies in multiple contexts.

Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.

Course Learning Outcomes

Upon successful completion of the course, the student will be able to…

1. Operate a variety of modules or equipment at different analytical parameters
2. Conduct chemical tests in laboratory to determine efficiency of operation at different settings
3. Conduct drinking water tests according to standard methods and complete reports for agency submittal
4. Operate treatment modules or systems assigned