

IPOP-2730 3 CREDITS APPLICATIONS OF MUNICIPAL WASTEWATER TREATMENT OPERATIONS

SYLLABUS

CATALOG DESCRIPTION:

This course is an extension of the Municipal Wastewater Treatment Operations class for those students interested in obtaining the hands on skills associated with this field. It includes operating equipment such as pumps, heat exchangers, and instrumentation. Unit startups, normal operations, and safe shutdowns are all covered. Students continue running the water ion exchange unit and the wastewater unit, and add operating the Boiler Turbine Generator unit. Additional water testing is done in the water laboratory.

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 several modules learning how to start up and shut down equipment safely

A copy of this approved syllabus is on file in the dean's office.

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2. Conduct laboratory tests to prove efficient operation for different parameters
3. Conduct typical laboratory tests for wastewater effluent
4. Operate modules or systems assigned in laboratory exercises