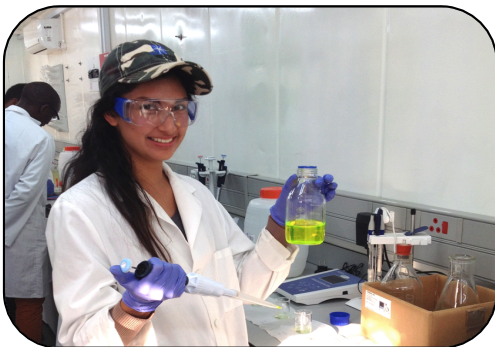




International Experience



Innovative Research



FUNDING & SUPPORT

This project is supported by the National Science Foundation and is a unique opportunity for San Diego State University and CalPoly Pomona University students to visit the University of KwaZulu-Natal in Durban, South Africa, to research new advances in decentralized wastewater treatment, resource and energy recovery from wastewater, and sustainability in sanitation. Financial support also comes from San Diego State University's MESA program and the SDSU College of Engineering. Cal Poly Pomona University supports pre-departure orientation activities. The University of KwaZulu Natal provides in-kind support, assistance with on-site transport and logistics, and access to state-of-the-art environmental laboratories.

CONTACT INFORMATION

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<http://sustainablesanitation.weebly.com/>



International Research Experience for Students IRES

SUSTAINABLE SANITATION



Environmental Engineering
San Diego State University &
Cal Poly Pomona University

JOIN US!

This project is a summer research experience for students at San Diego State University and CalPoly Pomona University to study new advances in decentralized wastewater treatment (DEWATS) and sustainable sanitation at the University of KwaZulu-Natal (UKZN) in Durban, South Africa.

The Sustainable Sanitation IRES seeks to immerse students in hands-on projects, stimulate interest in the critical topic of water reuse, and encourage pursuit of post-graduate education.

Durban, South Africa

Durban is the largest city in the South African province of KwaZulu-Natal. Durban is a large port city and tourist destination, known for its beaches, Zulu historical sites, and proximity to the Drakensberg Mountains.

The Pollution Research Group (PRG)

The PRG in University of KwaZulu Natal's School of Engineering has been conducting research on DEWATS, the impact of effluent on local environments, sanitation systems, and other water-related environmental issues. Directed by Professor Chris Buckley, PRG is a leading authority on fecal sludge management and has received numerous grants from the eThekweni Municipality and the Bill & Melinda Gates Foundation.



DECENTRALIZED WASTEWATER TREATMENT

Population growth outpaces infrastructure construction in urban areas around the world. To deal with rapid growth and lack of sanitation in Durban, South Africa, the Pollution Research Group (PRG) at the University of KwaZulu Natal has been researching low cost, sustainable solutions for the treatment of wastewater and solid waste.

The PRG has teamed with the research and development agency, BORDA, to design an Anaerobic Baffled Reactor (ABR) and constructed wetland system to treat wastewater from ~80 homes at their Newlands-Mashu site. The treated wastewater is reused for agricultural trials. PRG also conducts research on urine separation, nutrient and energy recovery from waste, and strategies to deal with pit latrine emptying.

IRES students can be involved in various projects at the Newlands-Mashu site in Durban. Many of the IRES projects will focus on the ABR. Others will focus on water reuse for agriculture and beneficial use of faecal sludge at the water-energy-food nexus.

Coordinators



Dr. Monica
Palomo, CPP

Dr. Natalie
Mladenov, SDSU



APPLY NOW

ELIGIBILITY:

- Graduate and undergraduate students from SDSU and CPP who will still be enrolled in Fall 2016 or later.
- Must be U.S. citizens or permanent residents.
- Previous experience in environmental engineering.
- GPA of 2.8 or higher for undergraduate and 3.0 or higher for graduate students.

APPLICATION:

Your application packet must include:

- Completed application (download from website)
- Letters of reference from two professional references,
- Academic transcripts (unofficial are OK),
- An essay limited to 500 words explaining:
 - why you wish to participate in this program,
 - your research experiences or other preparation for conducting research in environmental engineering,
 - your future goals, including if you are interested in graduate school, and
 - the research project that you are interested in working on (see list of projects on website) and why it is of interest to you.

DEADLINE: FEB 1, 2016

<http://sustainablesanitation.weebly.com/>