

# **Professor (all ranks) in Water Purification Processes and Technologies**

## **Arizona State University: Ira A. Fulton Schools of Engineering: School of Sustainable Engineering and the Built Environment**

### **Location**

Arizona State University - Tempe Campus

### **Open Date**

Oct 22, 2019

### **Description**

The [Ira A. Fulton Schools of Engineering](#) at [Arizona State University](#) (ASU) seeks applicants for a tenured or tenure-track faculty position in the area of water purification processes and technologies to support the National Science Foundation Nanosystems Engineering Research Center for Nanotechnology Enabled Water Treatment (NEWT). The appointment may be at the Assistant, Associate, or Full Professor rank commensurate with the candidate's experience and accomplishments. Although the faculty appointment may be in any of the six Fulton Schools of Engineering, the School of Sustainable Engineering and the Built Environment (SSEBE) and School for Engineering of Matter, Transport and Energy (SEMTE) are currently among the most involved in the interest areas of the search related to NEWT. The projected start date is August 2020, but accommodations can be made as appropriate.

Candidates should have research interests aligned with the study and integration of nanomaterials in water purification processes. Nanotechnology involves manipulation of materials from the quantum scale to ~100 nm size domain where unique optical, electronic, magnetic or other properties emerge, and can be integrated into macroscale water processes. Research areas of interest include, but are not limited to: electrocatalytic, electrochemical, solar, or light mediated processes for municipal, industrial, wastewater, brackish groundwater, agricultural, humanitarian, space exploration, biomedical or small system water treatment applications; machine learning and artificial intelligence applications that lead toward materials or process discovery for applications related to water. NEWT also includes a nanomaterials safety and

sustainability theme, and candidates with associated research interests in green synthesis of nanomaterials, nanomaterial safety, or evaluation of risks from transformations of pollutants in water by nanotechnology enabled water treatment processes, are also invited to apply.

Job responsibilities include developing an internationally recognized externally funded research program, teaching undergraduate and graduate courses, generating a scholarly publication record and mentoring undergraduate and graduate students, and undertaking service activities as appropriate to the rank.

NEWT (<http://www.newtcenter.org/>) began in 2015 and is a collaboration between ASU, Rice University, Yale University and the University of Texas at El Paso. SSEBE has 52 tenured or tenure-track faculty members, approximately 1,350 undergraduate and 400 graduate students, and generates annual research expenditures in excess of \$18 million per year. The school is home to a number of research centers including two NSF Engineering Research Centers (NEWT and Center for Bio-mediated and Bio-inspired Geotechnics (CBBG)). SSEBE offers a number of degree programs: Civil, Environmental, and Sustainable Engineering; Environmental Engineering; Construction Management; and Construction Engineering. SEMTE has 74 tenured or tenure-track faculty members, approximately 3,100 undergraduate and 690 graduate students, and generates annual research expenditures about \$18 million per year. SEMTE offers undergraduate and graduate degrees in Aerospace, Chemical, Materials Science, and Mechanical Engineering, and graduate degrees in Solar Energy Engineering and Commercialization, and Robots and Autonomous Systems.

## **Qualifications**

Required Qualifications:

- Ph.D. in Civil, Environmental, Sustainable, Chemical, or Mechanical Engineering, Materials Science, or closely related field, by the time of appointment.
- Demonstrated evidence of research capability and commitment to teaching excellence as appropriate to the candidate's rank.
- Demonstrated ability to procure sponsored research appropriate to the candidate's rank.

Desired Qualifications:

- Professional engineering licensure or the ability to obtain registration in a timely manner is desirable.

The successful candidate is expected to contribute to the growth and success of NEWT and academic programs in SSEBE or SEMTE. It is expected that the candidate will contribute to the advancement of the water focus in the Environmental Engineering program, which was ranked #13 in the US News and World Report Graduate Program rankings in 2019. The successful candidate will also support the mission of the Ira A. Fulton Schools of Engineering, and is expected to participate in interdisciplinary research and teaching endeavors both within the Fulton Schools and across campus. Opportunities to engage in transdisciplinary research include possible collaborations with faculty in the School of Earth and Space Exploration, School of Life Sciences, School for the Future of Innovation in Society and School of Sustainability, as well as University initiatives and centers such as ASU Lightworks (<https://sustainability.asu.edu/lightworks>) and the Biodesign Institute (<https://biodesign.asu.edu>).

## **Application Instructions**

Application deadline is December 16, 2019. Applications will continue to be accepted on a rolling basis for a reserve pool. Applications in the reserve pool may then be reviewed in the order in which they were received until the position is filled. To apply, candidates will submit the following through Interfolio Dossier:

- Cover letter
- Curriculum Vitae
- Two-page Statement describing research interests
- Two-page Statement describing teaching interests
- Contact information for 3-5 references

Applicants should apply at:

<https://apply.interfolio.com/70362>

For more information or questions about this position, please contact the search committee co-chairs Professor Paul Westerhoff or Professor Candace Chan via email at [p.westerhoff@asu.edu](mailto:p.westerhoff@asu.edu) or [candace.chan@asu.edu](mailto:candace.chan@asu.edu).

## **Application Process**

This institution is using Interfolio's Faculty Search to conduct this search. Applicants to this position receive a free Dossier account and can send all application materials, including confidential letters of recommendation, free of charge.

## **Equal Employment Opportunity Statement**

A background check is required for employment. Arizona State University is a VEVRAA Federal Contractor and an Equal Opportunity/Affirmative Action Employer. All qualified applicants will be considered without regard to race, color, sex, religion, national origin, disability, protected veteran status, or any other basis protected by law.

(See <https://www.asu.edu/aad/manuals/acd/acd401.html> and <https://www.asu.edu/titleIX/>.)

In compliance with federal law, ASU prepares an annual report on campus security and fire safety programs and resources. ASU's Annual Security and Fire Safety Report is available online at <https://www.asu.edu/police/PDFs/ASU-Clery-Report.pdf>. You may request a hard copy of the report by contacting the ASU Police Department at 480-965-3456.