Economic Development
Arizona State University

Innovation Zones at ASU

Nanotechnology

Center for Nanotechnology in Society

The Center for Nanotechnology in Society at ASU (CNS-ASU) is the largest center for research, education and outreach on the societal aspects of nanotechnology in the world. CNS-ASU is creating new capabilities, in the U.S. and globally, for increasing reflexivity with nanotechnology research and society's capacity to engage in anticipatory governance of emerging technologies.

- Research the societal implications of nanotechnology and emerging technologies.
- Train an interdisciplinary community of scholars with new insights into the societal dimensions of emerging technologies.
- Engage the public, policy-makers, business leaders and researchers in dialogues about the goals and implications of emerging technologies.
- Partner with cutting-edge laboratories to cultivate greater reflexiveness in research, development, education and policy.

PSM in nanoscience

The professional science master in nanoscience is a cohesive program of transdisciplinary courses that provide the knowledge base required for research and innovation in nanoscience. Commercial innovation is a particular target goal of the degree, including applications in:

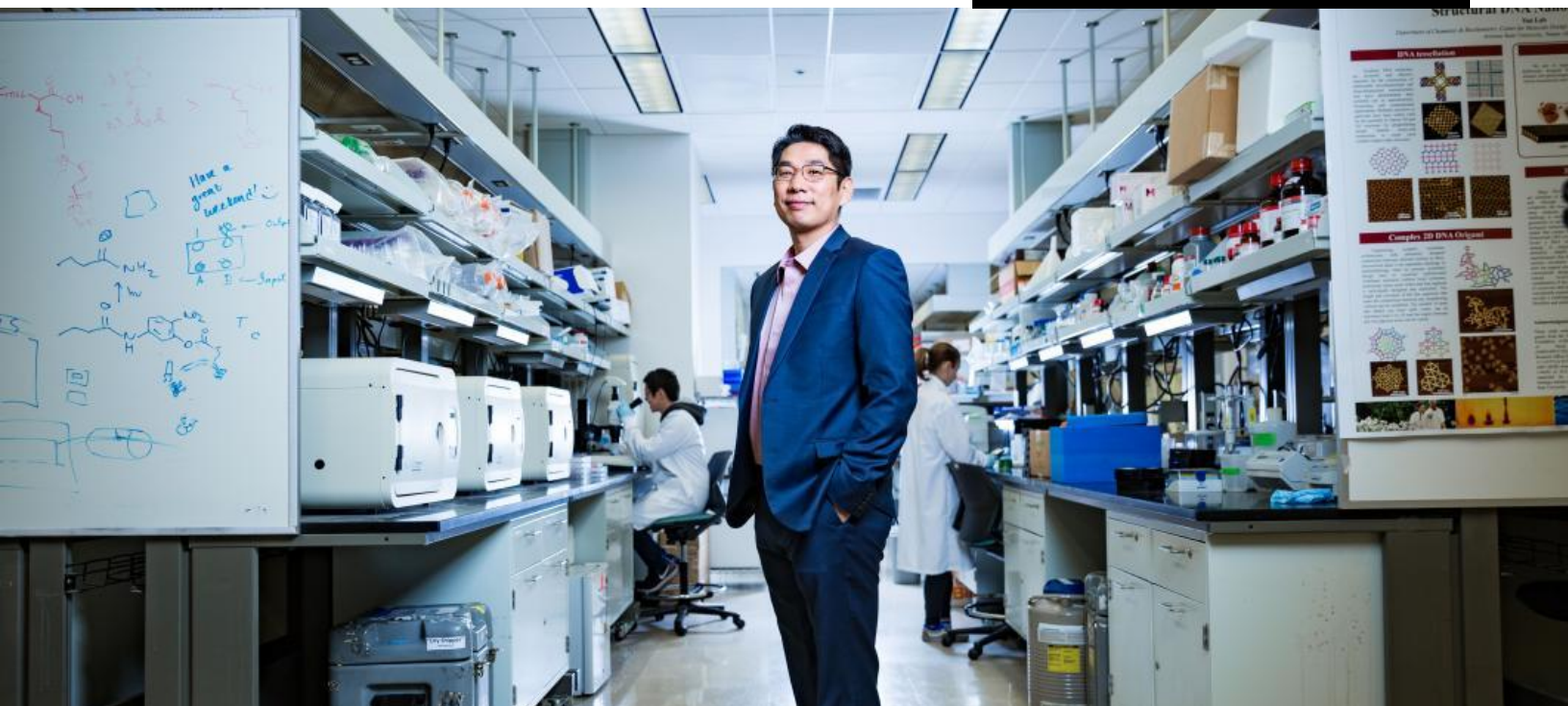
- Biochemistry and sensing technology.
- Biophysics and biomedical technology.
- Nanomaterials and nanoscale devices.

The ASU advantage

ASU is home to the **John M. Cowley Center for High Resolution Electron Microscopy.**

This facility houses a dozen electron microscopes that can probe the physical, electronic and chemical structure of matter on an atomic scale. These instruments and techniques include:

- Ion milling.
- Electron microprobe.
- Scanning electron microscopy.
- Transmission electron microscopy.
- Scanning transmission electron microscopy.
- Aberration corrected electron microscopy.



ASU NanoFab

Offering state-of-the-art device processing and characterization tools for research and industry partners specializing in nanofabrication, unique silicon processing, molecular and bioelectronics, microelectromechanical systems, nano-fluidics, optoelectronics, and device characterization.

- 3,800 square-foot class 100 cleanroom space.
- Eight auxiliary labs.
- Affiliated with the National Nanotechnology Coordinated Infrastructure.

Eyring Materials Center

The center supports materials analysis across the disciplines of physics, chemistry, biological sciences, earth and space sciences, and engineering, providing open access to advanced facilities and equipment for materials characterization; surface, optical and structural analysis; and high-resolution electron microscopy. Facilities include:

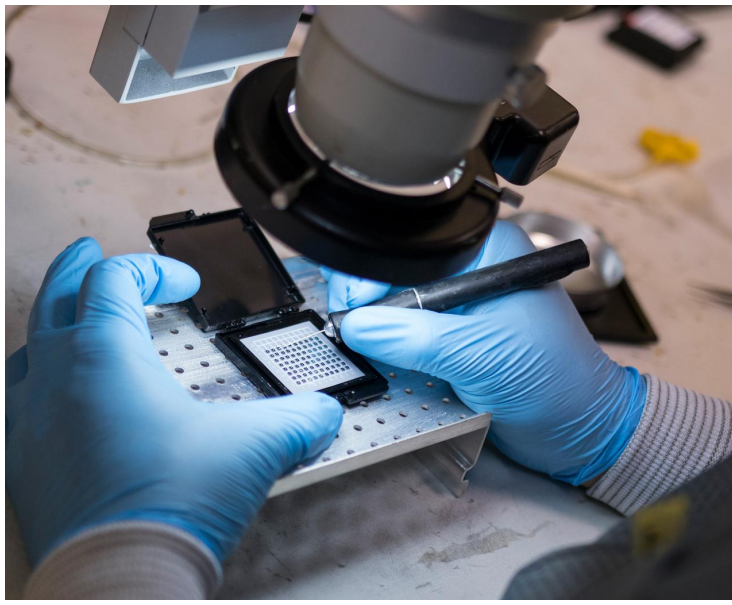
- Center for High-Resolution Electron Microscopy.
- Life Science Electron Microscopy.
- Goldwater Materials Science Facility.
- Metals, Environmental and Terrestrial Analytical Laboratory.

MacroTechnology Works

Located at the ASU Research Park, MacroTechnology Works is a unique facility that allows ASU to advance research in partnership with private industry. This state-of-the-art semiconductor processing facility is home to the Advanced Electrons and Photonics (AEP) core facility for materials and device fabrication. The facility also offers clean rooms, wet labs, dry labs, high bay space and office accommodations.

Nanoscience and material physics

ASU uses the tools of physics to create, probe and understand new materials and atomic-size structures that will enable technological breakthroughs. Faculty and students devote effort to the development of experimental and theoretical tools that make it possible to achieve a deeper understanding of materials properties, from electron holography to thermodynamics at the nanoscale.



More than 100 faculty members working together on diverse nanoscience and materials physics projects

World's leading university in sub-angstrom resolution electron microscopy

Home to the first free electron laser for materials research

Arizona State University

oed.asu.edu

To learn more:
oed@asu.edu

#1 in the U.S. for innovation
ASU ahead of MIT and Stanford
– U.S. News & World Report, 7 years, 2016–2022

BEST COLLEGES U.S.News & WORLD REPORT MOST INNOVATIVE 2022