

## WHAT DO I do next?

Visit our research facilities and meet with the nanoscience faculty as part of a campus visit. You may also email the following faculty with questions:

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Nanoscale Science – Chemistry Emphasis,  
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For more information, visit our website at  
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# Why Nanoscience?

**NORTHWEST MISSOURI STATE UNIVERSITY**  
Department of Natural Sciences



## WHAT IS Nanoscience?

Nanoscience is the study and use of materials at the molecular or nanometer level. A nanometer is a billionth of a meter, or approximately one one-millionth the size of the period at the end of this sentence. Some work with nanoscience focuses on the development of better materials for everything from computers to medical implants.

## WHY STUDY Nanoscience?

At Northwest, our nanoscience program is interdisciplinary and offers hands-on laboratory experience in a new, state-of-the-art facility. Nanoscale science holds great promise for future applications in everyday life. Applications are currently being developed in such fields as energy production, photography, optoelectronics, information storage, and medicine (antimicrobial agents, cell viability, cell detection and pharmaceuticals).

According to Lux Research, nanotechnology will touch an estimated \$3 trillion worth of products by 2015, and the National Science Foundation forecasts the creation of millions of new jobs. More than 80 percent of those jobs will require advanced education and training specific to the field.

## WHAT DOES THIS MEAN for you?

Nanoscience graduates will be on the cutting-edge of research, and their education will prepare them to take advantage of this growing field and the job opportunities available. Companies hiring those with nanoscience experience include Apple, Coppertone, Dupont, Xerox and Lancôme, just to name a few. Available positions will be in product development and improvement, with products ranging from sunscreens to smaller, lighter “smart” devices to targeted pharmaceuticals to antimicrobial clothing. The average starting salary for a graduate in this field is \$42,000, though there is a wide range.

## WHAT COURSEWORK DOES this field involve?

Northwest’s Nanoscale Science program has three different tracks: a Biology Emphasis, a Chemistry Emphasis and a Physics Emphasis. All of our students will take courses in biology (cellular biology and genetics), classical physics, chemistry (general and organic), and two interdisciplinary nanoscience courses, as well as choosing from a variety of upper level discipline-specific nanoscience courses.

