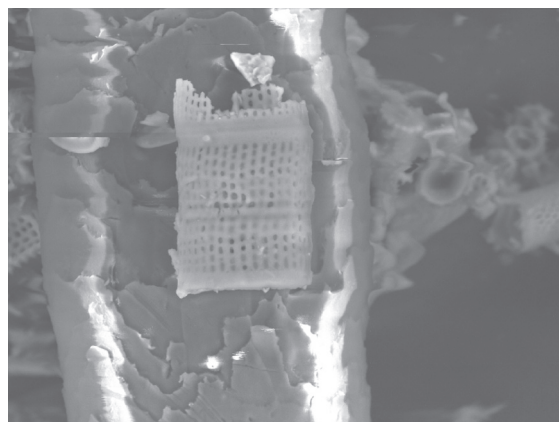


See What YOU Can't See!

Harper College developed its new **Nanoscience Technology** program to help you learn more about the field of Nanoscience and prepare you for a career in Nanoscience through hands-on experience using modern equipment. Nanoscience looks at structures that are a nanometer in size, which is one billionth of a meter. Nanoscience is currently being used in many fields such as health, manufacturing and science.



Pool Filter Material (Fossilized diatoms) shown on human hair for scale at 800x magnification

Q: What is “Nanoscience”?

A: Nanoscience explores the world of materials, including biological materials, in sizes ranging from about 1 to 100 billionths of a meter. Nanoscience uses tools that can probe at dimensions smaller than traditional instruments.

Q: Why is nanoscience important to the future?

A: The nanoscience program was started out of a need for a commercial workforce at all educational levels. Harper is starting this program with help from the National Science Foundation.

Q: How is the program at Harper going to differ from the program at a four-year school?

A: Harper’s program is designed for entry level technician jobs in a variety of industries using nanoscale tools and materials. Harper’s program complements four-year programs in industrial technology that are increasingly called upon to train students in more advanced technologies.

Q: Are there other universities in the area offer nanoscience so I can complete my bachelor degree?

A: Harper has an agreement with Northern Illinois University that allows you to transfer your credits toward a bachelor’s degree in Technology with an emphasis in Industrial Mangement Technology. This partnership provides you with the opportunity to complete the first three years of your bachelor’s degree at Harper and then transfer to complete your fourth year at NIU’s Hoffman Estates campus.

Q: How many courses are specifically focused on nanoscience in the nanoscience associate degree?

A: To earn an Associate of Applied Science Degree in Nanotechnology, you must complete 17 courses. Seven of these courses are nanoscience classes.

Q: When did the field of nanoscience start to develop?

A: The field of nanoscience was born during the 1980s and 1990s with the discovery of unique nanoscale forms of carbon that could be engineered into a variety of custom forms. Also, a new class of instruments that are capable of high-resolution viewing and manipulation of single atoms were invented. The National Nanoscale Initiative (NNI) provided federal funding to rapidly move these developments from the lab to commercial products.



Spider's Fang at 80x Magnification

Q: Do I have to begin the program during the fall semester?

A: No. The introductory course is available in the fall and spring.

Q: Can I earn a Nanoscience degree online at Harper College?

A: No. You are not able to complete the nanoscience degree online because the courses are hands-on in lab settings. However, Harper is looking into developing blended courses. Blended courses allow you to do lab work on campus and then complete the rest of the course work online. Some of the material can be learned using online simulations as a replacement for lab work.



Q: Do you have state-of-the-art labs dedicated to the nanoscience program?

A: A lab with nanoscience-specific instruments will be completed this summer in Avante Center for Science, Health Career and Emerging Technologies.

Q: Will I receive real world experience during the program?

A: There are internships available and Harper participates in Nano-Link, this allows you to have access to training at the University of Minnesota with leading researchers in the field.

Q: Do I have to find my own internship?

A: Harper is developing relationships with specific companies and schools in order to offer internships. Many companies like having the opportunity to see what students can do.

Q: What does the future look like for careers in nanoscience?

A: Nanoscale tools and materials are finding their way into applications of consumer goods, medical diagnostics, pharmaceuticals, energy-related projects and the agricultural industry. This wide range of fields offers a diverse and growing array of employment opportunities.

Q: If I wanted to change careers, how would this program help me?

A: The techniques, materials and instruments used in nanoscience are finding their way into the personal care industry and other fields. Many industries are beginning to look at materials at a nanometer level and they are looking for people with experience using these tools.

Learn more about the
Nanoscience Technology Program

Visit: harpercollege.edu

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