**SHORT DESCRIPTION**
Nanomaterials are essential building blocks to produce chemicals in an environmentally friendly manner, harvest light to supply energy, develop faster computers and better medicines. You will be offered in-depth knowledge on, and experimental experience with, novel nanomaterials, their synthesis, structure and functionality for example as catalysts or in nanophotonics.

**THE RIGHT CHOICE FOR YOU?**
The combined talents and expertise of chemists and physicists are essential for success in a number of fields of science and technology. The dimensions of systems at the microscopic level determine the physical and chemical properties and applications. Nanomaterials of tomorrow include colloidal crystals for the manipulation of light in miniature lasers and optical devices, and new catalysts for more efficient and environmentally friendly chemistry.

You will be educated as a scientist who contributes to a more sustainable society. You will participate in the exciting field of nanomaterial development based on fundamental knowledge with applications and industrial interest just around the corner. You will be taught by staff members who excel in research and in teaching and who all have close ties with industrial partners. An internship in industry is often chosen by many of our students.

The prestigious Debye Institute for NanoMaterials Science provides teaching and research in the programme. The institute focuses on three research areas: Colloids, Catalysis and Nanophotonics.

You can enter the programme from either the Chemical Sciences or the Physical Sciences and choose a track that leads to a MSc in that discipline. Within each track there is room for both fundamental and applied approaches. You can, for example, specialise in the physics of...
novel states of matter, such as coherent matter in optical lattices, or self-assembled quantum-dot or colloid solids.

**AFTER GRADUATION**
This MSc degree will qualify you to do further post-graduate research leading to a PhD degree in chemistry, physics or materials science. It will also be an excellent qualification for acquiring a research or development position in industries that are investing in innovation or in new companies at the interface of biotechnology, nanoelectronics, chemistry and nanomaterials. The programme also provides a good background for working towards a career in management or consultancy, particularly in companies with a technology base.

**COURSES**
The only obligatory primary course is ‘Nanomaterials: Catalysis, Colloids and Nanophotonics’. You can choose three other primary courses from one of the three research areas. After completing these, you can either choose secondary courses, gain experience in industry or gain experience at a university abroad. The thesis and research project of one year completes the programme.

**ADMISSION**
Applicants are expected to hold one of the following degrees:
- a BSc degree in Chemistry with acquired practical skills in the field of physical, inorganic and organic chemistry
- a BSc degree in Physical Sciences with acquired practical skills in the field of experimental physics, electronics and computer techniques
- a BSc degree in Material Sciences

**HONOURS PROGRAMMES**
Do you want to get more out of your Master's programme?
- This Master's programme offers two honours programmes for talented students with a strong international or industrial component. Graduates demonstrate excellent academic skills and interdisciplinarity in research and course work.
- Utrecht University offers an honours course for Master's students with leadership potential. For more information see www.uu.nl/YLL

" Chemistry and physics are essential for the development of sustainable solutions"
"I chose this master because you can tailor your own programme and it gave me the opportunity to go abroad. I went to Calgary for one year. Next to master courses, I did my thesis project there in which I combined the research on group-3 metals in Calgary with the research on pincer ligands in Utrecht. In this thesis I experimented with new chemistry. After I finish my PhD I want to work in applied research. One option I have in mind is to go into sustainability, because the fields of chemistry and physics are essential for the development of new sustainable solutions."

Tamara Eggenhuisen, PhD student

Watch the Nanomaterials video

www.uu.nl/programmes/nano

More information
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