Master programmes
Wageningen University & Research

www.wur.eu/university | 2017-2018
That is the mission of Wageningen University & Research. Within the domain of ‘healthy food and living environment’, our scientists and students work around the globe conducting research for non-governmental organisations, government agencies and the business community. Contributing to the improvement of the quality of life is our goal. Wageningen University & Research is the number 1 university when it comes to the agricultural life sciences and among the top 10 when it comes to environmental sciences. Our education programmes focus on complex issues in food production, the relation between food and health, environmental issues and biodiversity. These issues are subject to increasing worldwide concern.

At Wageningen, we first take a broad picture into account before zooming in on the finer details and subjects. This enables us to both understand processes on a molecular level and their influence on and interaction with higher integration levels, such as ecosystems, crop characteristics or human health.

A lot of the solutions seem to come from a technological approach, like creating better crops or smarter technology, but an approach from a merely biological, chemical or physical angle does not do the job. In the complex dynamics of the modern world, it is no longer possible to solve complex issues through a simple mono-disciplinary result or approach. Solving government issues and dealing with socio-economic and cultural constraints are as important as coming up with technical solutions. This approach is taught to our students and is the driving force behind our leading research groups. Our scientific and educational endeavours are internationally oriented and have an impact on society, policy and science.

On our wonderful campus students and scientists from around the world gather to form a large international community that bridges cultures in a natural way. This not only enriches the dynamic climate of our university, but it stresses the necessity to work together on a global scale and in international teams. Global challenges have no boundaries and co-operation is of utmost importance. In Wageningen, the ability to work in intercultural international teams comes naturally.

I hope this brochure captures your interest and that we may welcome you in the near future as a new member of Wageningen University & Research’s international academic community.

Prof. dr. Arthur P.J. Mol
Rector Magnificus
## Master of Science Programmes

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Specialisations

Genetics and Biodiversity
Biodiversity is shaped by evolutionary and ecological forces. Genetic variation is crucial for fitness of individuals and for biodiversity. In this specialisation, quantita-
tive, population and molecular genetic approaches are integrated to protect and use sources of genetic variation in captive populations of animals and livestock species.

Nourishment and Metabolism
The aim of this specialisation is to understand the relation between nutritional de-
mands, diet formulation, digestion and metabolism in animals, and their responses in terms of performance, health and waste emission. Feeds for animals should be formulated to provide safe and healthy food for humans and to prevent negative ef-
fects of nutrition on emissions to the environment.

Global and Sustainable Production
This specialisation studies the development of sustainable animal systems across the world. Knowledge from different disciplines, such as animal sciences, economics and social sciences, are combined. The aim is to provide sufficient food supply for mankind in a responsible way, without compromising culture and environment.

Adaptation, Health and Welfare
This specialisation focuses on the adaptive capacity of individual or groups of ani-
mals to a changing direct environment, such as dietary or housing interventions. Responses in terms of immunological status, energy metabolism, thermoregulation, reproduction and behaviour are studied in various animal species.

Molecule, Cell and Organ Functioning
Molecule, Cell and Organ Functioning

Programme summary
Animals are an integral part of our society: they provide us with food and compan-
ionship. Sustainable animal husbandry and livestock development is influenced by technical factors, such as feed supply, animal health, management and genetics, and also by infrastructural and socio-

Economic factors. Today’s animal scientists need in-depth scientific training combined with a critical attitude towards all these factors. Our tailor-made and thesis-
oriented programme trains students to become skilled professional animal scien-
tsists, well equipped to develop modern, efficient and humane ways to care for and make the best use of the animals who share our lives.

Your future career
Our graduates often start as scientific researchers, advisors, trainers, nutrition or breeding specialists or policymakers. Common employers are companies involved in animal nutrition or breeding, research institutes and universities, but also regional and (inter)national govern-
mental and non-governmental organisa-
tions. Graduates usually advance to a managerial level as their careers progress.

ADMISSION REQUIREMENTS
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Related programmes
- MSc Biology - MSc Forest and Nature Conservation -
- MSc Aquaculture and Marine Resource Management -
- MSc Ecosystems Engineering - MSc Organic Agriculture.

Specialisations

Aquatourism
This specialisation deals with the culture of numerous aquatic organisms (such as fish, shrimp, shellfish, ornamental fish, corals, sponges and algae) in a wide range of culture environments (from sea enclosures to semi-
exclusive ponds and high-tech recirculation systems). Productions methods should guarantee the health and well-being of the culture, organisms, and be sustainable, economically viable, socially accepted, and result in safe and healthy products. This can only be achieved through knowledge and skills in aquatic production ecology based on knowledge of biological, physical and chemical integrity of water bodies and insight in economic and social driving factors.

Marine Resources and Ecology
This specialisation focuses on the sensitivity of marine communities in relation to human interventions, including climate change, fisheries and habitat destruction, and learn to address limiting factors in order to be able to contribute to an improved biodiversity, environmental quality and sustainability of marine ecosystems. This requires insight into population dynamics and stock status, the ecological processes that form the basis for the marine food chains, the interaction between species and the functioning of the different ecosystems.

Marine Governance
This specialisation provides you with the skills and tools to understand sustainable governance and economics of marine and coastal systems. The goals and strategies of national and international commercial enterprises, non-governmental and governmental organisations and international institutions are analysed, and their effects are evaluated in relation to both organisations and ecosystems involved. You will become proficient in the function of new private governance instruments, such as eco-certification and environmental credits.

Related programmes
- MSc Animal Sciences - MSc Biology - MSc Forest and Nature Conservation -
- MSc Environmental Sciences.

Programme summary
Oceanic, sea, estuaries and lakes are major providers of ecosystem goods and services such as food, tourism and coastal protection. In many cases, exploitation levels have bypassed the carrying capacity of these ecosystems, leading to devastating effects on biodiversity and ecosystem functioning. To preserve marine biodiversity and its ecosystem functions, innovative and sustainable solutions are necessary. Therefore, there is a need for young profes-

sionals who know how to take an integrative approach to marine ecosystems management.

The MAM programme starts with courses that give a common basis on aqua-
culture and marine resource management. In these courses, you will learn the principles of marine ecology and the governance of marine systems, the biology and ecology of aquatic organisms and the role of science in public policy processes. Within the Master programme Aquaculture and Marine Resource Management, you can choose one of three specialisations: Aquacul-
ure; Marine Resources and Ecology; Marine Governance. Graduates are skilled in techniques and methods in analysing and solving biological and environmental problems in aquatic systems by looking at the organisms and the communities including ecological, social and management aspects.

Your future career
The interest in sustainable management of the seas and coasts is booming, while there are only few professionals available with an integrated and specialised training in this field. Numerous types of specialists are needed, including technical specialists, researchers, consultants and project leaders in commercial, governmental and non-governmental organisations. Check our website for our career booklet with examples of jobs our alumni currently have.

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Biobased Sciences

Specialisation Biomass Production and Carbon Capture within MSc Plant Sciences | Dr. Anja Kuipers | +31 (0)317 48 28 39 | mps.msc@wur.nl
Specialisation Biorefinery and Conversion within MSc Biotechnology | Dr. Sonja Isken | +31 (0)317 48 2241 | mbt.msc@wur.nl | www.wur.eu/mbs

Your future career

Students with this specialization are well trained to work in a multi- and inter-disciplinary team in a biobased research and development environment as scientist, process engineer or manager. Graduates will have careers in the agricultural business, water companies, energy producers, logistics, governmental and non-governmental organisations. They will work in an innovative and emerging market.

ADMISSION REQUIREMENTS
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Thesis tracks

Bioinformatics

The bioinformatics track focuses on the practical application of bioinformatics knowledge and skills in molecular life sciences. It aims at creating and using bioinformatics resources to address specific research questions. The knowledge and skills gained can be applied in many life science disciplines such as molecular & cell biology, biotechnology, (human) genetics, health & medicine and environmental & biobased technology.

Systems Biology

The systems biology track focuses on the study of the complex interactions in biological systems and the emerging properties derived from these. Systems biology approaches to complex biological problems offer a wealth of possibilities to understand various levels of aggregation and enables control of biological systems on different scales. Systems biology approaches are therefore quickly gaining importance in many disciplines of life sciences, such as in applied biotechnology, where these methods are used to develop strategies for improving production in fermentation. Other examples include bioconversion and enzymatic synthesis, and in the study of human metabolism and its alteration. In these examples, systems biology methods are applied to understand a variety of complex human diseases, including metabolic syndromes and cancer. The Wageningen Master programme focuses on the practical application of bioinformatics and systems biology approaches in many areas of the Life Sciences. To ensure that students acquire a high level of understanding of modelling and computing principles, the students are trained in the fundamentals of database management, computer programming, structural and functional genomics, proteomics, and systems biology methods. This training includes advanced elective courses in molecular biology and biostatistics.

ADMISSION REQUIREMENTS
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Related programmes
MSc Biotechnology - MSc Molecular Life Sciences - MSc Plant Biotechnology.

Programme summary

Many challenges, current and future, lie ahead in a transition to a sustainable biobased economy. The number of people in the world is growing, as are the levels of well-being and prosperity. It is possible for all nine billion humans to have a relatively high level of prosperity and welfare in 2050. For this to happen, however, major changes in the way we deal with food, animal feed, materials and energy are required. Right now, materials and energy are often produced from fossil fuels, and this should increasingly be replaced by biomass in the future. The main challenge for the current generation of students is to work on improving resource efficiency and the use of land in order to meet all these needs, while not forgetting climate, biodiversity, multiple land use, recreation and social issues.

Wageningen University & Research covers the transition from a petrochemical to a biobased society from the different disciplines in a multidisciplinary, holistic approach. The programme includes multidisciplinary design of production chains including biomass production, bioconversion, biorefinery and social, logistic and economic transition processes. New products will be designed in multi-disciplinary teams to account for the socio-economic, ethical and environmental aspects related to biomass production and carbon capture in an international context; Wageningen offers many pilot facilities, such as AlgaePARC, Acres and CAT AgroFood, as well as production facilities for products such as bioplastics, chemicals and packaging materials.

New MSc programme coming up. At this moment the specialisations are offered within the Biosystems Engineering, MSc Biotechnology and the MSc Plant Science. As from September 2018 the specialisations will be included in the upcoming MSc Biobased Sciences. The MSc Biobased Sciences will start in September 2017 on condition of approval by the Dutch Ministry of Education, Culture and Sciences and accreditation by the Dutch Flemish Accreditation Organisation (NVAO).

Your future career

Students with this specialization are well trained to work in a multi- and inter-disciplinary team in a biobased research and development environment as scientist, process engineer or manager. Graduates will have careers in the agricultural business, water companies, energy producers, logistics, governmental and non-governmental organisations. They will work in an innovative and emerging market.

ADMISSION REQUIREMENTS
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Related programmes
MSc Biotechnology, MSc Plant Sciences, MSc Biosystems Engineering, MSc Plant Biotechnology, MSc Environmental Sciences

Programme summary

DNA contains information about life, but how is this information used? Biological data, such as DNA and RNA sequence information produced by next-generation sequencing techniques, is accumulating at an unprecedented rate. Life scientists increasingly use bioinformatics resources to address their specific research questions. They bridge the gap between complex biological research questions and this complex data. Bioinformatics uses and develops computational tools to predict gene function(s) and to demonstrate and model relationships between genes, proteins and metabolites in biological systems. Bioinformatics is an interdisciplinary field that applies computational and statistical techniques to the classification, interpretation and integration of large-scale biological data sets. If different data types are joined then complex interactions in biological systems can be studied. The use of systems biology methods to study complex biological interactions offers a wealth of possibilities to understand various levels of aggregation and enables control of biological systems on different scales. Systems biology approaches are therefore quickly gaining importance in many disciplines of life sciences, such as in applied biotechnology, where these methods are used to develop strategies for improving production in fermentation. Other examples include bioconversion and enzymatic synthesis, and in the study of human metabolism and its alteration. In these examples, systems biology methods are applied to understand a variety of complex human diseases, including metabolic syndromes and cancer. The Wageningen Master programme focuses on the practical application of bioinformatics and systems biology approaches in many areas of the Life Sciences. To ensure that students acquire a high level of understanding of modelling and computing principles, the students are trained in the fundamentals of database management, computer programming, structural and functional genomics, proteomics, and systems biology methods. This training includes advanced elective courses in molecular biology and biostatistics.

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Related programmes
MSc Bioinformatics - MSc Molecular Life Sciences - MSc Plant Biotechnology.

Alumna Ellen Siegers. "After my Master I started my PhD research during which I developed simulation models for micro-algae production. During my PhD research I got intrigued by the ongoing innovations for the biobased economy. Now I am a post-doc researcher at Wageningen University & Research. The university offers a unique combination between biological and technological research and is very strong in applying systematic approaches to complex and interrelated research areas. My research focuses on sustainable biorefinery designs, and in particular how we can include sustainability assessment during early stages of biobased process development.”

Alumnus Tom van den Bergh. “It is sometimes difficult for doctors to diagnose genetic diseases caused by missense mutations. A missense mutation does not necessarily mean that you have the gene-associated disease and will become ill, since not all missense mutations lead to appreciable protein changes.” Tom created a database for Fabry’s disease for his final thesis. He wrote a computer programme that reads publications and stores all information about Fabry mutations in its database. Genetic researchers can, in turn, quickly access this database to determine if the mutation they found is in a patient has already been addressed in literature and what the effects were.
Animal Adaptation and Behavioural Biology
This specialisation focuses mainly on adaptation of animals that have occurred in the course of time, mechanisms involved in these adaptations and behaviour of animals.

Bio-interactions
In this specialisation, you obtain knowledge about interactions between organisms. You learn to understand and interpret interactions on different levels, from molecular to ecosystem level, and apply this knowledge on for example natural pest control.

Molecular Ecology
In this specialisation, you learn to use molecular techniques to solve ecological questions. Think of interactions between plants and viruses, microbial diversity in an ecosystem or the influence of the environmental factors on a population.

Conservation and Systems Ecology
This specialisation focuses on fundamental ecological processes. You learn to analyse ecosystems and interpret relations between chemical/physical processes and bioprocesses. You can use this knowledge to manage and conserve ecosystems. Evolution and Biodiversity
The systematics of biodiversity in an evolutionary perspective is the central focus of this specialisation. Subjects that will be addressed in this specialisation are: evolution, genetics, biosystematic research and taxonomic analysis.

Health and Disease
You focus on the mechanisms that play a role in maintaining the health of humans, animals and other organisms. You learn to look at the regulation of the immune system at the molecular and cellular level. You also observe the role of organs in immune responses against pathogens.

Marine Biology
Choosing this specialisation means studying the complexity of the marine ecosystem. You learn about the impacts of, for instance, fishery and recreation on marine ecosystems, providing a unique intellectual framework.

Molecular Development and Gene Regulation
This specialisation focuses on gene regulations and developmental mechanisms of organisms. You gain knowledge on microscopic and molecular techniques and use this to explore for example enzymatic regulation or embryonic development.

Plant Adaptation
This specialisation focuses on the adaptations that different plants gained in order to adjust to various conditions. You learn to understand the regulation processes in plants that underlie these adaptations.

Programme summary
Biological issues are at the forefront of the technological progress of modern society. They are central to global concerns about how we affect the environment and are affected by it. Understanding the complexity of biological systems, at scales ranging from single molecules to whole ecosystems, provides a unique intellectual challenge.

The MSc Biology allows students to get a broad overview of the latest developments in biology, from genes to ecosystems. They learn to critically discuss the newest scientific developments in the biological sciences. Within their area of specialisation, students develop their knowledge and skills in a certain subject. To prepare for a successful international career, we strongly encourage our students to complete part of their programme requirements abroad.

Your future career
Many graduates from the MSc Biology study programme enter careers in fundamental and applied research for example becoming a communication officer. Compared to other Dutch universities, many biology graduates from Wageningen University & Research find a position abroad. See our career booklet online for current jobs of our alumni.

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Related programmes
MSc Molecular Life Sciences - MSc Animal Sciences - MSc Plant Sciences - MSc Forest and Nature Conservation - MSc Biotechnology - MSc Plant Biotechnology - MSc Organic Agriculture - MSc Aquaculture and Marine Resource Management.

Thesis tracks
Farm Technology
This track consists of four main themes, namely automation for bioproduction, greenhouse technology, livestock technology and soil technology. All these topics have the shared goal of designing systems in which technology is applied to the demands of plants, animals, humans and the environment. Examples of such applications include precision agriculture, conservation tillage, fully automated greenhouses and environmentally-friendly animal husbandry systems that also promote animal welfare.

Systems and Control
Production processes and various kinds of machinery have to be optimised to run as efficiently as possible, and with the least amount of possible environmental impact. To achieve this, computer models and simulations are developed and improved. Examples include designing control systems for a solar-powered greenhouse to include a closed water cycle and designing a tomato-harvesting robot.

Information Technology
Information and communication play a vital role in our society. It is necessary to acquire, use and store data and information to optimise production processes and improve the quality in production. This requires the design and management of information technology systems. It also means that you are responsible for the data management of computer systems, databases and networks. In this specialisation, you develop the necessary knowledge and skills.

Environmental Technology
Environmental technology revolves around closing cycles and reusing waste products and by-products. Processes have to be designed in such a way that they either reuse waste or separate it into distinct and reusable components. Examples include the production of compost, the generation of green energy or the design of energy-efficient and animal-friendly animal husbandry systems and greenhouses.

AgroLogistics
The goals of agrologistics are to get the right product in the right quantity and quality at the right time and to the right place as efficiently as possible while fulfilling the requirements of the stakeholders (such as government legislation and regulations). You develop the design of effective, innovative logistics concepts in agri-food chains and networks. Examples are the design of greenhouses developed for optimal logistics or designing a dairy production process with minimal storage costs.

Biosystems Engineering
The importance of biobased economy is increasing. Energy savings and the use of renewable energy are directions for achieving an environmentally sustainable society. Biomass of plants and other organisms can be turned into a spectrum of marketable products and energy. In this track, you learn more about process engineering, biological recycling technology, biorefinery and how to abstract a real system into a physical model and analyse the physical model using dedicated software.

Programme summary
During the master Biosystems Engineering, students are trained in finding innovative solutions. The programme combines knowledge of technology, living systems, natural and social sciences with integrated thinking using a systems approach. Solutions can be applied to either the field of food or non-food agricultural production. During the programme, you develop independence and creativity while acquiring skills that enable you to analyse problems and work as part of an interdisciplinary team. Biosystems Engineering is a tailor-made, thesis-oriented programme based on the specific interests and competencies of the student.

Your future career
Most graduates are employed in the agro-food sector, or related sectors of industry and trade, from local to international companies. They are project leaders, product managers, technical experts, sales specialists or managers at many kinds of companies including designers of agricultural buildings (animal husbandry systems, greenhouses) and bio-energy production systems. Others find work as engineers in companies (climate control engineers, automation engineers) or firms in the agro-food chain that produce, store, process, distribute and market agricultural products. In the service sector or at government agencies, graduates enter careers as consultants, information officers or policy-makers in the fields of technology and sustainable agricultural production, while others enter research careers at institutes or universities.

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Related programmes
MSc Animal Sciences - MSc Plant Sciences - MSc Geo-information Science - MSc Geographical Information Management and Applications - MSc Organic Agriculture.
Specialisations

Cellular and Molecular Biotechnology
This specialisation focuses on the practical application of cellular and molecular knowledge with the aim of enhancing or improving production in micro-organisms or cell cultures. Possible majors: molecular biology, biochemistry, microbiology, virology, enzymology and cell biology. The knowledge and skills gained can be applied in food biotechnology, medicine and vaccine development, environmental and bio-based technology.

Process Technology
This specialisation focuses on engineering strategies for developing, enhancing or improving production in fermentation, bioconversion and enzymatic synthesis. Possible majors: bioprocess engineering, food or environmental engineering, applied biotechnology and biobased chemical technology. The knowledge and skills gained can be applied in food biotechnology, medicine and vaccine development, environmental and bio-based technology.

Marine Biotechnology
This specialisation focuses on the use of newly-discovered organisms from the sea in industrial processes. Applications include production of new medicines, fine chemicals, bio-based products and renewable energy.

Medical Biotechnology
This specialisation focuses on the use of modern biotechnology in the development and production of new vaccines and medicines. Advanced molecular and cellular techniques are used to study diagnostic and production methods for vaccines and medicines. Possible majors: molecular biology, microbiology, virology and cell biology.

Food Biotechnology
This specialisation focuses on the application from biotechnology to food processing. The approach includes microbial and biochemical aspects integrated with process engineering and chemistry. Possible majors: food microbiology, food chemistry and process engineering.

Environmental and Biobased Technology
This specialisation focuses on the design and development of biotechnological processes for solving environmental problems by removing waste products or by producing required products. Possible majors: environmental technology, bioprocess engineering, microbiology and biobased chemical technology. For more information on the specialisation Biorefinery and Conversion see the next page.

Programme summary

Biotechnology is defined as the industrial exploitation of living organisms or components derived from these organisms. Its practical applications include age-old techniques such as brewing and fermentation, which are still important today. In recent decades, gene modification has revolutionised the biotechnology industry, spawning countless new products and improving established processes. Modern biotechnology has become an applied area of science with a multidisciplinary approach embracing recombinant DNA technology, cellular biology, microbiology and biochemistry, as well as process design and engineering.

Your future career

Graduates in biotechnology have excellent career prospects. More than 60 percent begin their careers in research and development. Many of these Master graduates go on to earn their PhD degrees and often obtain management positions within a few years. Approximately 30 percent of our graduates start working for biotechnology companies immediately. Relatively few begin their careers outside the private sector or in a field not directly related to biotechnology. In the Netherlands, some graduates work for multinational companies such as MSD, DSM, Heineken, Unilever and Shell, while others find positions at smaller companies and various universities or research centres such as NIK and TNO.

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Related programmes

MSc Molecular Life Sciences - MSc Food Technology - MSc Biorefinery - MSc Plant Biotechnology - MSc Environmental Sciences.

Specialisations

Food Biotechnology

This master gives you a useful tool for understanding the meaning of every result in a real-life situation and enables you to select the best solutions to tackle specific problems. Wageningen University & Research is a great university where science flourishes and research is of utmost importance. It is the ideal environment to gain knowledge and to accomplish your goals.

Programme summary

Food quality management assures the health and safety of food and other perishable products (e.g. flowers) and has become increasingly important in today’s society. This is due to changing consumer requirements, increasing competition, environmental issues and governmental interests. It has resulted in a turbulent situation on the food market and in the agro-food production chain. The situation is further complicated by the complex characteristics of food and food ingredients, which include aspects such as variability, restricted shelf life and potential safety hazards; as well as many chemical, biochemical, physical and microbiological processes. To face this challenge, continuous improvement in food quality management methods is required wherever knowledge of modern technologies and management methods plays a crucial role.

Quality issues in food and other perishable products are generally tackled using either a technological or a managerial approach. At Wageningen, a concept has been developed that combines both aspects. This ‘techno-managerial’ approach forms the basis of the Food Quality Management programme. It provides a comprehensive and structured overview of quality management for predicting food systems’ behaviour and generating adequate improvements in these systems from a food chain perspective.

The programme teaches graduates to understand and work together with the different players in the food industry (management, Research & Development) in order to ensure high-quality products.

Your future career

Graduates from this programme will be experts in the field of food quality management and can enter careers in agribusiness, research and public administration. Typical positions include:
• Quality assurance manager (responsible for the quality of the ingredients for a specific product).
• Designer/specialist (working on the quality aspects of fresh products in the development process).
• Advisor/consultant (advising companies on certification).
• Researcher (studying the improvement of existing quality assurance systems in the food industry).

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Related programmes

MSc Management, Economics and Consumer Studies - MSc Food Technology - MSc Food Safety.
Programme summary
Wageningen University & Research is one of the few universities in Europe able to offer education and research in all fields of food safety. This does not only include technical disciplines such as microbiology and toxicology, but also the legal, economic and communication aspects. The Food Safety programme at Wageningen University & Research is one of the most modern and innovative in the world. Started in 2000 as the first of its kind, it is still the only two-year, full-time Master Food Safety programme offered in Europe and the only programme offering Food Safety Law. The programme prepares graduates for careers in the food industry, government or consumer organisations; the three key players in international food safety management.

The food industry is increasingly confronted with farm-to-table food safety measures, regulations, legislation and guidelines aimed at controlling food hazards. As a result, there is an increasing demand for managers with expertise in food safety evaluation who are able to survey and monitor the chemical, microbiological and physical parameters of product composition and product safety. Food safety experts are able to understand and analyse the variation in quality and safety of products. They are also able to assess the potential risks involved in the adoption of new production methods and processing techniques. Food safety evaluation concerns food constituents, agro-chemicals, environmental contaminants and natural toxins.

Food regulations are getting more and more complex, creating the need for regulatory affairs specialists in industry or in lobbying organisations. The programme is the only programme offering Food Safety Law for students with either a technical or a legal degree, thereby, fulfilling the need in society for such positions.

Your future career
The employment market is promising and all recent graduates found jobs with relative ease. The demand for university-trained professionals in this field is currently higher than the number of graduates available. Most recent graduates found jobs in the private sector, at universities or at food safety research institutes. Many graduates enter careers in government and go on to managerial positions. Due to the increased efforts of the EU in the development of national food safety organisations, there will be many more job opportunities in various European countries, both for technical as well as regulatory specialists.

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Related programmes
MSc Food Quality Management - MSc Food Technology - MSc Nutrition and Health.

Specialisations

Patient Moath Almayman. “The courses of the Master Food Safety consist of technical, managerial and legal aspects of food safety and are directly linked to real life situations. This in combination with the ability to perform research and an internship at an international company enhanced my working experience, were reasons for me to choose this master. Even with a small population, Wageningen is a great cosmopolitan town. So many students from different backgrounds make it a very interesting place.”

Ingredient Functionality
This specialisation focuses on the composition of food. Especially, on the role of various components, ingredients or structures in the quality and functionality of the final product. It deals with sensory, nutritive and textural aspects of foods in relation to their components. You major in Food Chemistry or Food Physics.

Product Design
While many new products are launched, not all succeed. This specialisation deals with the design and development of new or improved products. The focus is on the processes used in Food Technology, the design of new products from a consumer perspective and on modelling new product concepts/processes through predictive quality control. You major in Food Process Engineering or Food Quality and Design.

Sustainable Food Process Engineering
This specialisation focuses on the dairy production chain. Its core programme consists of dairy-related courses combined with a cluster in chemistry and physics, fermentation or processing. During the second year, you complete a dairy-related thesis research project and internship.

Sensory Science
This specialisation combines Food Technology with Nutrition and Health. You will work with people and products in different contexts and study how sensory systems function, how this relates to products and how to analyse these aspects.

Programme summary
The Food Technology programme at Wageningen University & Research has been in place for more than 50 years and is considered one of the best and most innovative programmes in its field in Europe. Wageningen University & Research offers high-level courses and research in all areas of food science; ranging from advanced technical fields, such as Process Engineering or Chemistry, to fields with a more economic or sociological focus, such as Marketing and Gastronomy.

The Wageningen Food Science group is larger than that of any other European university. It includes professors and lecturers from a wide range of departments: Food Chemistry, Food Physics, Food Biotechnology, Food Microbiology, Food Quality and Design, and Food Process Engineering. Food Technology covers nearly all aspects of food science and technology. As a result of being a very broad field, students are required to choose one of the specialisations offered.

Your future career
Graduates find jobs with relative ease, especially in the Netherlands and Western Europe. Recent graduates found positions in the private sector (from small- and medium-sized companies to large multinationals), at Wageningen University & Research or other universities as PhD students, and at research institutes domestically and abroad. Graduates also work in the field of process technology at innovation centres, innovative food companies or government agencies. Most obtain management positions.

Related programmes
MSc Food Quality Management - MSc Food Safety - MSc Biotechnology - MSc Nutrition and Health.
Specialisations

Biological Chemistry
By combining the principles of chemistry, biochemistry, molecular biology, cell biology, microbiology, genetics and bioinformatics, this specialisation enables students to contribute new insights to the life sciences. Increasingly complex areas are studied, such as the molecular regulation of growth and cell differentiation, gene control during development and disease, and the transfer of genetic traits. Another important field is enzymology, where enzyme mechanisms are studied with the aim of understanding and modifying their properties to make new compounds or biological membranes.

Physical Chemistry
This specialisation uses the most advanced technologies to focus on the chemical and physical properties of molecules and their behaviour in chemical and biochemical processes. The processes in nature are used as models for studying and synthesising new compounds with interesting chemical or physical properties for applications such as LCDs, biosensors or food science. Students can major in the fields of biophysics, organic chemistry or physical chemistry and colloidal science.

Biomedical Research
This specialisation equips graduates with key skills in the natural sciences and enables them to use these skills as part of an integrated approach. Many recent breakthroughs in biomedical research have taken place at the interface between chemistry, biology and physics, so it is logical that many of our graduates enter careers in biomedical research. The explicit aim of this specialisation is to prepare students for careers at a medical research institute, academic hospital or a company in the pharmaceutical industry. As a result, students also complete their internships at such locations.

Physical Biology
Students in this specialisation learn to view biomolecules from a physical point of view. They use techniques in biophysics, physical chemistry, microscopy and magnetic resonance (MRI) to contribute to areas such as cell–cell communication, transformation of light into chemical energy, and protein interactions. Students can major in fields such as biochemistry, biophysics, microbiology, molecular biology, plant physiology, physical chemistry and colloid science.

Programme summary

The Molecular Life Sciences programme focuses on molecules and their properties. It seeks to discover relationships between the physical and chemical properties of molecules, particularly the role of complex molecules in living systems. It is an interdisciplinary programme that combines chemistry, physics and biology. The aim of the programme is to enable students to conduct independent research at the interface of chemistry, biology and physics, or in an applied field such as medicine, the environment, food sciences or (bio)nanotechnology. The programme is tailor-made and thesis-oriented, with the thesis being the culmination of the study.

Your future career

By combining the power of chemistry, physics and biology, graduates are able to make a significant contribution to fundamental and/or applied research in fields such as (bio)nanotechnology, biotechnology, environmental research, biomedical research, nutrition and the food sciences.

Our graduates enter careers at universities, research institutes and industrial laboratories. The first job for many of our graduates is a four-year PhD project at a university or research institute. This is not only excellent preparation for a research career, but it also prepares you for management positions. Others become science journalists, teachers or consultants in government or industry.

Related programmes

MSc Biotechnology - MSc Food Technology - MSc Bioinformatics - MSc Nutrition and Health - MSc Plant Biotechnology - MSc Biology.

Programme Summary

Do you think it is interesting to study the role that nutrition and lifestyle play in the development of diseases? Epidemiologists try to detect these relationships in large groups of people. Epidemiology is the basic science of public health. Research results are the starting points for health advice and lead to a greater understanding of cause and effect. If it is known that certain behaviour leads to a disease, then you can quantify the impact of that behaviour and establish effective measures for disease prevention. The acquired knowledge can be used in health policymaking and intervention programmes in both developing and developed countries. You will be helping to improve the overall health of people and may be able to prevent food-related diseases from developing.

The master specialisation Nutritional Epidemiology and Public Health addresses the design, implementation, analysis and interpretation of epidemiological research, both interventional and observational. It focuses on the aetiology and prevention of diseases, with specific reference to dietary patterns, nutritional factors and lifestyle. Central issues are assessment of exposure, risk factors of disease, biomarkers for health status and analysis and interpretation of major study designs. Since you need expertise and competences in both nutritional epidemiology and public health to be able to fully understand this domain, the study programme consists of different courses and trainings combining these two fields.

Nutritional epidemiology courses focus on the design, conduct, analysis and interpretation of epidemiological research, both in the clinical domain and in free living populations. Concerning health outcomes, the emphasis is on diet-related diseases and conditions, such as obesity, cardiovascular diseases, cancer and certain infectious diseases. Nutritional epidemiology is closely related to clinical research and causal inference in the biomedical domain, relevant to underpinning public health interventions in dietary patterns and lifestyle. The acquired evidence from epidemiological research has to be translated into public health policies and health promotion programmes, both at the local, national and international level. Public health courses address the design, organisation, implementation and evaluation of intervention programmes that address the lifestyles of individuals (e.g. behaviour, food choice, physical activity, well-being) and/or societal context (e.g. work, school, media, policies). Public health has close relationships with methods and theories from psychological, social, economic, agriculture and political research.

Related on-campus programmes

MSc Nutrition and Health.
**MSc Nutrition and Health**

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**Alumna Pascale Weijzen.** Pascale did a thesis in Epidemiology and Sensory Science. After her graduation, she did a PhD project on the dynamics of food choice and sensory specific satiety. She joined FrieslandCampina afterwards, as a Researcher Sensory & Consumer Science, where she has been responsible for innovation projects aiming at strategies to stimulate healthy food choices. “I really feel I can contribute to both public health and the company’s bottom line simultaneously. In this job, I still benefit from the broad nutrition and sensory expertise, the strong academic level of thinking, and the worldwide expert network which I built up during my MSc and PhD degrees.”

**Specialisations**

**Epidemiology and Public Health**

Epidemiologists try to determine causal relationships in large groups of people, such as the elderly or people with cardiovascular problems; between food, lifestyle and the development of diseases. Research results act as starting points for health advice and lead to a greater understanding of cause and effect. If you know that certain behaviour leads to a disease, that behaviour can be addressed, and the effectiveness of the efforts to do so can be measured. You will be helping to improve the overall health of people and may be able to prevent food-related diseases from developing.

**Complete Online Master**

In September 2015, Wageningen University & Research started the specialisation "Nutritional Epidemiology and Public Health" as the first complete online Master of Science. For more information, read the programme description in this brochure, or go to www.wur.eu/mnh

**Nutritional Physiology and Health Status**

In this specialisation, you will study various age groups and situations, such as growth, pregnancy, and food consumption behaviour. You will also review special situations including serious diseases (clinical food), during sports and activity. You may also research the food consumption behaviour and habits of individuals and how they may be influenced compared to, for example, through portion sizes. In short, you will review different aspects and will learn what the effects are of food consumption patterns and the physiological processes on the body and what that means for the status of its health and illness.

**Molecular Nutrition and Toxicology**

In this specialisation, you will learn to use molecular and cellular techniques to discover the mechanism driving the relationship between food and health. In toxicology, you will learn to study the possible poisonous effects of substances present in food, such as new ingredients in food products and additives, but also natural substances present in our food. The relationship between food consumption and health can also be studied and through this research, you will find many new leads to improving our health.

**Sensory Science**

This specialisation is positioned at the interface of the programmes Food Technology and Nutrition and Health. Sensory scientists deal with the way humans perceive the world and act upon sensory input. They address how sensory systems function, from stimulation and perception to cognition and behaviour. You will work with humans and products in different contexts and study the way in which product properties affect, for example, sensory perception. The study always keeps a link to the application of this knowledge in the fields of human health and the design, production and consumption of attractive healthy foods.

**Programme summary**

Nutrition and Health focuses on the role of dietary and lifestyle factors in human health and disease. This role is studied from a biomedical perspective at the individual and population levels. In addition, the mechanisms underlying beneficial and adverse effects are studied at the sub-cellular (DNA), cellular and organ/organism levels. Human nutrition is a multidisciplinary field of expertise. To solve problems in nutrition and health, you must consider chemical and biochemical characteristics, physiological and biomedical aspects, the social and behavioural context of nutrition, and the relationships between these factors. Solving problems in this domain requires multidisciplinary biomedical skills as well as an interdisciplinary approach to communication with experts in human nutrition and other fields.

**Your future career**

Many of our graduates begin working as researchers or PhD students. Another group becomes advisors, trainers or take up other jobs in the private sector. The majority of graduates finds employment at universities (including university medical centres), research institutes (TNO Nutrition or RIVM), in the public sector (national, regional and local governments, Netherlands Nutrition Centre, District Health Authorities), or companies involved with nutrition, pharma-coology and toxicology (Unilever, Nutricia, Friesland Campina, Danone Research, Novartis). As graduates progress in their careers, they usually advance to a (more) managerial level.

**ADMISSION REQUIREMENTS**

See page 44.

**Related programmes**

MSc Food Safety - Health and Society (specialisation).

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**MSc Organic Agriculture**

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**Alumna Natasja Poot.** “I have chosen the MSc Organic Agriculture because I was looking for a programme in which all aspects of agriculture are discussed. Courses addressed topics on soils, plants, animals and their interactions. I did not want to feel myself to just organic agriculture, but I can apply the knowledge to all conventional integrated farming systems as well. After graduating, I started at BLGG as a product manager Soil Health. BLGG is a laboratory in the agricultural sector that offers innovative analyses and advices that help farmers in their everyday management. In my position, I am focusing on developing tools for soil-borne diseases, nematodes and soil suppressiveness.”

**Specialisations**

**Agroecology**

Due to concerns on conventional farming practices, food safety issues and pollution, consumers increasingly demand wholesome agricultural products that are produced in a sustainable way. In addition to the demand for organic products by consumers in industrialised countries, there is a need for scientific agroecological farming practices in developing countries and countries in economic distress. In these regions, farmers cannot afford external inputs like pesticides, fertilisers or expensive seeds. Courses focus on: the analysis and design of sustainable organic farming systems; studying the relationship between plant and animal production; soil and landscape; analysing factors affecting plant and animal health; organic product quality. Students learn a systems approach to conduct research projects involving integrated agroecological systems.

**Sustainable Food Systems**

Improved understanding of global and local agro-food networks is essential to stimulate sustainable production of healthy food and renewable resources. This specialisation focuses on the social sciences perspective of sustainable systems of food provisioning. In addition, globalisation and sustainability of food production and consumption are addressed. Production, processing and marketing of organic products is increasingly affected by (inter-)national policies and legislation. Insight into these aspects is crucial to expand and develop organic food production networks. Courses focus on: globalisation of food production and consumption, global versus local production; consumer behaviour and marketing; sustainable food networks and value chain analysis; environmental education. Students learn to analyse complex problems at the intersection of organic agriculture and society.

**Double Degree Agroecology**

The double degree programme combines the strengths of the two co-operating universities, adding the specialist knowledge in agroecosystems management of FESIA with the expertise in designing and evaluating sustainable food systems and value chains in Wageningen. Students get the opportunity to understand structure and function of complex agroecosystems. They learn to apply systems approaches in studying, designing and evaluating agricultural systems and food production chains, and to develop creative strategies for sustainable farming and marketing of organic products. Action learning and action research through cooperation with farmers, food system professionals and consumers will shorten the distance between practice and theory.

**Programme summary**

This programme has been designed to train students in multiple aspects of organic agriculture and the associated processing and marketing chain. An important goal is to prepare for interdisciplinary teamwork at an academic level. The programme is unique in its combination of detailed consideration of the underlying principles and processes from a natural science perspective with social and economic studies. Creative thinking is required to design new sustainable farming and marketing systems instead of simply optimising existing systems. The programme has an international character that uses case studies and offers project opportunities in both the developed and developing world. The curriculum has been carefully formulated to provide a balance between fundamental and applied science. Various university groups participate including farming systems ecology, soil quality, animal science, entomology, rural sociology, environmental policy, education and economy, making this a well-rounded and holistic programme.

**Your future career**

Graduates have career opportunities in agribusiness, research, non-governmental organisations and public administration. They often hold jobs such as scientist, consultant, policy maker or quality assurance officer.

**ADMISSION REQUIREMENTS**

See page 44.

**Related programmes**

MSc Food Quality Management - MSc Environmental Sciences - MSc Plant Sciences - MSc Animal sciences - MSc Biology - MSc Management, Economics and Consumer Studies - MSc Forestry and Nature Conservation.
Specialisations

Functional Plant Genomics
Functional genomics aims at understanding the relationship between an organism’s genome and its phenotype. The availability of a wide variety of sequenced plant genomes has revolutionised insight into plant genetics. By combining array technology, proteomics, metabolomics and genomics with bioinformatics, gene expression can be studied to understand the dynamic properties of plants and other organisms.

Plants for Human and Animal Health
Plants are increasingly being used as a safe and inexpensive alternative for the production of valuable proteins and metabolites for food supplements and pharmaceuticals. This specialisation provides a fundamental understanding of how plants can be used for the production of foreign proteins and metabolites. In addition, biomedical aspects such as immunology and food allergy, as well as nutritional genomics and plant metabolomics, can also be studied.

Molecular Plant Breeding and Pathology
Molecular approaches to analyse and modify qualitative and quantitative traits in crops are highly effective in improving crop yield, food quality, disease resistance and abiotic stress tolerance. Molecular plant breeding focuses on the application of genomics and QTL-mapping to enable marker assisted selection of a trait of interest (e.g., productivity, quality). Molecular plant pathology aims to provide a greater understanding of plant-insect, plant-pathogen and crop-weed interactions in addition to developing new technologies for integrated plant health management. These technologies include improved molecular detection of pathogens and transgene methods to introduce resistance genes into crops.

Programme Summary
Due to rapid technological developments in the genomics, molecular biology and biotechnology, the use of molecular marker technology has accelerated the selection of new plant varieties with many desirable traits. It also facilitates the design, development and management of transgenic crops. At present, plants are increasingly used to produce valuable proteins and secondary metabolites for food and pharmaceutical purposes. New insights into the molecular basis of plant-insect, plant-pathogen and crop-weed relationships enable the development of disease-resistant plants and strategies for integrated pest management. A fundamental approach is combined with the development of tools and technologies to apply in plant breeding, plant pathology, post-harvest quality control, and the production of renewable resources.

Besides covering the technological aspects, Plant Biotechnology also deals with the ethical issues and regulatory aspects, including intellectual property rights.

Your future career
The main career focus of graduates in Plant Biotechnology is in research and development positions at universities, research institutes, and biotech- or plant breeding companies. Other job opportunities can be found in the fields of policy, consultancy and communication in agribusiness and both governmental and non-governmental organisations. Over 75% of Plant Biotechnology graduates start their (academic) career with a PhD.

ADMISSION REQUIREMENTS
See page 44.

Related programmes
MSc Biotechnology - MSc Molecular Life Sciences - MSc Plant Sciences - MSc Nutrition and Health
- MSc Bioinformatics - MSc Biology

Student Timo Petter. After 10 years of practical experience in Allium breeding, Timo subscribed to follow courses of the master Plant Breeding and Genetic Resources. His job at Bejo Zaden brought him to many countries where the breeding company has办公 breeding stations and sales representatives. But as a crop research manager he started to feel the need to improve his knowledge of the theoretical side of his profession: “Although I have not finished my masters yet, I use the knowledge that I have gained from the various courses every day! For a plant breeder, I believe that this master is the best educational programme available in the Netherlands.”

Programme Summary
Plant Breeding plays an important role in the development of plant varieties for food, feed and industrial uses. New varieties have to meet current demands regarding yield, disease resistance, quality characteristics, salt or drought tolerance and suitability for sustainable plant production systems. Plant Breeding involves a variety of aspects, ranging from the molecular level to the population level and requires knowledge of the physiology, ecology and genetics of cultivated plants. The use of various molecular techniques contributes enormously to the rapid identification of genes for natural resistance and is essential for accelerating the selection process by marker-assisted breeding.

Online Master
The online master specialisation is designed for part-time study (20 hrs/week) to combine work and study or in the context of Lifelong learning. A course programme of 2 years will be followed by a tailor-made internship and Master thesis. During the courses, you will closely collaborate with lecturers, tutors and fellow distance learning students on a virtual learning platform. The course programme includes two short stays of two weeks, each in Wageningen, for essential practicals that relate to the theory. There may be options to organise the academic internship and Master thesis in your own professional context, either part-time or full-time.

Your future career
Graduates of the Master Plant Sciences have excellent career prospects and most of them receive job offers before graduation. They are university-trained professionals who are able to contribute to the sustainable development of plant production at various integration levels based on their knowledge of fundamental and applied plant sciences and their interdisciplinary approach. Graduates with a research focus are employed at universities, research institutes and plant breeding or agribusiness companies. Other job opportunities are in management, policy, consultancy and communication in agribusiness and (non-) governmental organisations.

ADMISSION REQUIREMENTS
For information on admission visit www.wur.eu/omps

Related on-campus programmes
MSc Biosystems Engineering - MSc Botany - MSc Bioinformatics - MSc Biology - MSc Forest and Nature Conservation - MSc Organic Agriculture - MSc Plant Biotechnology - MSc Plant Breeding - MSc Plant Pathology - MSc Plant Protection - MSc Plant Sciences - MSc Soil Science - MSc Sustainable Aquaculture - MSc Sustainable Crop Production - MSc Sustainable Agribusiness - MSc Sustainable Forestry - MSc Sustainable Horticulture - MSc Sustainable Plant Health - MSc Sustainable Stockbreeding - MSc Sustainable Wildlife Management - MSc Urban Forestry - MSc Urban Planning - MSc Urban Soil Science - MSc Water Management
MSc Plant Sciences

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Alumnus Maarten Rouwet. "I was born in Germany and raised in the East of the Netherlands. After high school I applied for the beta-gamma bachelor at the University of Amsterdam where I majored in biology. After visiting the master open day at Wageningen University & Research I knew that the master Plant Sciences had something unique to offer. In my master, I specialised in plant breeding, an ever so interesting field of research. I just started my first job as junior biotech breeder of leavy vegetables at Enza Zaden, a breeding company in Eerbeek. One of my responsibilities is to identify resistance in wild species of lettuce and to implement these in breeding programs of cultivated lettuce."

Specialisations

Crop Science

The sound knowledge of crop science is essential to develop appropriate cultivation methods for reliable food supply, while considering sustainability and biodiversity. An integrated approach is crucial to studying plant production at various levels (plant, crop, farm, region). This requires a sound understanding of physical, chemical, and physiological aspects of crop growth. Modelling and simulation are used to analyse yield constraints and to improve efficiency.

Greenhouse Horticulture

Greenhouse horticulture is a unique agro-system that allows significant control of crop production. Plant breeding and genetics play a crucial role in this system. Cultivation practices and biological control are used to establish the basis for integrated pest management and resistance breeding. The specialisation Biomass Production and Carbon Capture within Plant Sciences focuses on the principles of plant breeding, agro-ecology and plant pathology and the integration of these disciplines to provide healthy plants for food and non-food applications. Technological aspects of crop production are combined with environmental, mental, socio-economic and logistical aspects. Students learn to apply their knowledge to develop integrated approaches for sustainable plant production.

Natural Resource Management

The development of sustainable agro-ecosystems requires understanding of the complex relationships between soil health, cultivation practices and nutrient cycling. Other aspects include the interaction between agriculture and nature, and competing claims on productive land worldwide and climate change. This specialisation provides knowledge and tools to understand the interactions between biotic and abiotic factors in agro-ecosystems to facilitate diverse agricultural demands.

Crop Breeding and Genetic Resources

Crop Breeding is crucial in the development of varieties that meet current demands regarding yield, disease resistance, quality and sustainable production. This specialisation ranges from molecular genetics to the production level and provides knowledge of the physiology and genetics of cultivated plants. Molecular techniques add to the rapid identification of relevant genes and are essential for accelerating approaches for sustainable plant production.

Your future career

Graduates in Plant Sciences have excellent career prospects and most of them receive job offers before graduation. They are university-trained professionals who are able to contribute to the sustainable development of plant production at various integration levels based on their knowledge of fundamental and applied plant sciences and their interdisciplinary approach. Graduates are in demand at universities, research institutes and plant breeding and agricultural companies. Other job opportunities are in management, policy, consultancy and environmental organisations.

ADMISSION REQUIREMENTS

See page 44.

Programme summary

Plant Sciences deals with crop production ranging from plant breeding to the development of sustainable systems for the production of food, pharmaceuticals and renewable resources. This programme focuses on the principles of plant breeding, agro-ecology and plant pathology and the integration of these disciplines to provide healthy plants for food and non-food applications. Technological aspects of crop production are combined with environmental, mental, socio-economic and logistical aspects. Students learn to apply their knowledge to develop integrated approaches for sustainable plant production.

Related programmes

- MSc Biotechnology - MSc Biology - MSc Forest and Nature Conservation - MSc Organic Agriculture - MSc Plant Biotechnology

MSc Water Technology

A joint programme offered by Wageningen University & Research, the University of Twente and the University of Groningen. ir. Nelleke van Dorenmalen | Programme Director | +31 (0)58 224 00 00 | nelleke.vandorenmalen@wetsus.nl | www.wetsusacademy.nl

Student Stefanie Stubbe. “Wetsus gave me the opportunity to get personalized education: teachers that take the time for you and fellow students that challenge and collaborate with you at the same time. Water technology is going to be big in the future. I already experienced that at several companies when I searched for an internship. Although it is sometimes hard work and far away from the “city-life” in the Netherlands; I never regretted my choice to start this Master!”

Programme summary

There are a lot of new and existing global problems related to the availability and quality of water for personal, agricultural and industrial use. And these problems require sustainable solutions with a minimal impact on the environment. Water technology has unfortunately not been a focal point of most academic research and education programmes, despite its enormous importance to society. Instead, the expertise of various research groups is usually concentrated on other processes and in some cases, only later dedicated to water treatment in spin-off projects. New technologies will be necessary to develop new concepts for the treatment of waste water. And also for the production of clean water from alternative sources like salt (sea) water, waste water or humid air in order to minimise the use of precious groundwater. These challenges require academically trained experts who can think out of the box and help to find practical solutions in the future. A dedicated joint Master Water Technology programme has been created to train and educate these experts.

The MSc Water Technology is situated in Leeuwarden, the capital of water technology, and is offered jointly by three Dutch universities: Wageningen University & Research, the University of Twente and the University of Groningen. A combined technological approach, based on state-of-the-art universities in science and technology, will search for solutions to several developments within business and society; with a worldwide impact on the demand for and use of water. This dedicated Master programme with joint degree allows for flexibility and can be adapted to the changing needs of society. Wageningen University & Research offers a strong focus on environmental sciences, the University of Twente offers expertise in environmental sciences and the University of Groningen on fundamental sciences. Students will be educated in the multidisciplinary laboratory of the technological top institute for water technology called Wetsus.

The MSc Water Technology programme specifically targets students interested in beta science and technology. The programme offers a unique combination of scientific insights and technological applications from the field of Biotechnology and Chemical Engineering. This combined approach for problem solving within the global framework of water problems, is an asset to the programme. The programme is a valuable supplement for postgraduate students with a completed bachelor degree in Environmental Engineering, Chemical Engineering and Biotechnology; or in related fields with a strong knowledge of mathematics, physics, chemistry and/or biology, and with affinity of water processes. Students are challenged with examples and case studies of real (research) problems that they might encounter as water professionals.

Students apply for the MSc Water Technology programme at Wageningen University, but will be registered at the other two universities as well. They will have access to the facilities of all three universities. Upon the successful completion of the programme, students receive one joint degree MSc Water Technology issued by all participating universities.

Your future career

This study domain is becoming more and more relevant due to the urgent need for new technologies to combat global water problems. Water technology for public drinking water production and sewage water treatment is a very large market. Furthermore, the largest use of fresh water is for irrigation purposes. The industrial water supply and industrial waste water treatment also represent a significant market. There is no question that business and business professionals are increasingly being asked with the changing needs of the labour market. Wageningen University & Research offers a strong focus on environmental sciences, the University of Twente offers expertise in environmental sciences and the University of Groningen on fundamental sciences. Students will be educated in the multidisciplinary laboratory of the technological top institute for water technology called Wetsus.

ADMISSION REQUIREMENTS

See page 44. For more information about the programme outline visit www.wetsusacademy.nl.

Related programmes

- MSc Biotechnology - MSc Environmental Sciences
### MSc Climate Studies

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**Student Fen-Yu Lin.** "The multidisciplinary focus of MSc Climate Studies has broadened my vision on climate change. Also, by taking the opportunity to complement my master with the Climate-KIC (Knowledge and Innovation Community) programme I could combine my thesis track Integrated Water Management with my interest in design and entrepreneurship. Thanks to the variety of courses from the MSc Climate Studies and Climate-KIC activities, I am able to meet many water enthusiasts, experts and green-minded people with multinational and multidisciplinary backgrounds. I look forward to synergizing together with more of you towards tackling climate change issues!"

### Programme summary

The MSc Climate Studies programme focuses on an improved understanding of climate change across the earth and its impact on ecosystems and society.

The debate in science no longer revolves around whether our climate will change, but how it will change, how we can cope with the impact (adaptation), and how we can limit climate change in the long term (mitigation). These issues are important for the entire world and fuel a range of new challenges to natural and social sciences.

Society needs answers to questions such as: How will climate change affect ecosystems and how will these in turn affect the climate system? What will the effect be on the availability of water and food? How will climate change issues set national and international political agendas? How will citizens, consumers, companies and other social actors respond to climate change? What will the economic costs be of the impact and measures related to climate change? And how will these costs be distributed globally? Will new social and economic opportunities emerge in the process of adaptation?

As these changes and challenges become ever more apparent, the demand for scientists who are able to understand and investigate them will rise. Wageningen University & Research has therefore bundled expertise from several disciplines in a Master study programme specifically designed for students who wish to focus on the scientific insights into climate change and its implications for nature and society.

Climate Studies does not only cover the most important geophysical and biogeochemical processes involved in climate change (the mechanisms), but it also covers the socio-economic aspects of causes and effects; as well as adaptation and mitigation as the main categories of societal response.

Climate Studies gives you a broad overview of climate-change related issues. You can specialise in a topic of your choice during your thesis research. We offer a wide range of thesis tracks:

- **Meteorology**
- **Air Quality and Atmospheric Chemistry**
- **Hydrology and Quantitative Water Management**
- **Crop and Weed Ecology**
- **Nature Conservation and Plant Ecology**
- **Soil Biology and Biological Soil Quality**
- **Soil Chemistry and Chemical Soil Quality**
- **Environmental System Analysis**
- **Environmental Economics and Natural Resources**
- **Environmental Policy**

**Your future career**

Graduates from this programme are well-equipped with the knowledge and skills to continue their academic training as a PhD student or to start a career as a scientific professional at universities, research institutes, and environmental and governmental organisations. Applied climate change researchers and experts are sought after by banks, insurance companies, construction and power companies and governments.

**ADMISSION REQUIREMENTS**

See page 44.

**Related programmes**

- MSc Environmental Sciences - MSc Earth and Environment

### Specialisations

**Hydrology and Water Resources**

The focus of this specialisation is to study the effects of climate change and other influences on the water balance of catchments to support optimal land management when dealing with hydrological extremes.

**Meteorology and Air Quality**

Would you like to contribute to further understanding of atmospheric processes and their relevance for weather and climate? In this specialisation you learn about physical-chemical processes, the composition of the atmosphere and the exchange between the atmosphere and earth’s surface and meteorology.

**Biogeochemistry of Soil and Water**

This specialisation allows you to develop an in-depth understanding of chemical and biological processes and their interactions in soils and natural waters, and their role in the functioning of terrestrial and aquatic ecosystems in a world that faces increasing anthropogenic pressures. Your final exam insights can contribute to develop effective strategies for the preservation and restoration of soil and water quality, biodiversity, and the functioning of natural ecosystems and the services they provide.

**Soil Geography and Earth Surface Dynamics**

This specialisation allows you to explore the spatial and temporal processes that are active in soils, landscapes and the wider earth system. It uses an integrative approach that combines biophysical and human elements to gain insight in past, present and future system dynamics.

The combination of specific discipline training and the Earth System approach prepares you for working on the scientific and societal questions of the future. You can also choose from a selection of elective courses, and we also offer a special track that prepares you for a PhD.

### Related programmes

- MSc Biology - MSc Climate Studies - MSc Environmental Sciences - MSc International Land and Water Management - MSc Plant Sciences.
The ten thesis tracks are clustered in 4 groups. Environmental Quality Investigates the physical, chemical and biological processes that influence the quality of the environmental compartments: Soil, Water and Air; and the effects of pollutants on humans and ecosystems. Students can choose the thesis tracks Aquatic Ecology and Water Quality Management, Air Quality and Atmospheric Chemistry, Soil Biology and Biological Soil Quality, Soil Chemistry and Chemical Soil Quality, or Environmental Toxicology.

Environmental Systems Analysis Studies the natural and social processes involved in environmental issues. It aims to develop integrative tools and methodologies and to apply these in strategic research. Students can choose to develop such an integrated approach via the thesis track Environmental Systems Analysis Evaluation and Modelling of Ecological Systems, working in knowledge transfer projects. Students can also opt for thesis tracks in Environmental Hydrobiology, Landscape Ecology, and Landscape Management.

Environmental Policy and Economics Covers the contribution of the social sciences to environmental research. The focus is on the social, political, legal and economic aspects of environmental issues and the goal is to provide students with the skills for studying, formulating and designing innovative forms of national and international environmental governance. Students can choose a thesis track in the disciplines of Environmental Policy, Environmental Economics and Natural Resources.

Environmental Technology Concentrates on biological, chemical and physical processes for water reuse and the recovery of nutrients, minerals and energy. The aim is to fully understand these processes in order to design and optimize innovative technologies for renewable energy, closing nutrient cycles and solving environmental issues. You can choose any of these topics via the thesis track Environmental Technology.

Programme summary
We are facing a future with an increased demand for food, water, energy and other resources, which will have an enormous impact on our already heavily-burdened environment. Environmental challenges for the future include using our resources efficiently, limiting our impact on nature, and creating and changing people’s awareness and behaviour towards their environment.

The MSc Environmental Sciences programme is designed for students who want to take up this challenge in finding innovative and sustainable approaches to secure and improve the state of the environment. This programme provides insight into the socio-economic causes, the characteristics of pollution and degradation of the natural environment, and their effects on human beings and ecosystems. By taking an interdisciplinary approach, students learn to develop analytical tools and models, environmental technologies, socio-political arrangements and economic instruments to prevent and control environmental problems.

To allow you maximum flexibility in your individual course of study, there are no formal specializations and compulsory elements are kept to a minimum. This allows you to tailor the programme to your individual needs. Major thesis research can be conducted in one of the ten thesis tracks (major) and each major can be combined with a minor in Environmental Communication or Education.

Your future career
Graduates from this programme are well-equipped to continue their scientific training in a PhD programme or to begin - or continue - a professional career requiring independent scientific performance. Students obtain the knowledge and skills needed to communicate with experts from different disciplines, allowing them to play a key role in complex environmental and sustainability issues. Most graduates enter careers in environmental consultancy, research and management, while others are involved in policy development and higher education.

ADMISSION REQUIREMENTS
See page 44.

Related programmes
- MSc Climatic Studies - MSc Urban Environmental Management - MSc Earth and Environment - MSc Forest and Nature Conservation - MSc Aquaculture and Marine Resource Management.

Thesis tracks
The ten thesis tracks are clustered in 4 groups. Environmental Quality Investigates the physical, chemical and biological processes that influence the quality of the environmental compartments: Soil, Water and Air; and the effects of pollutants on humans and ecosystems. Students can choose the thesis tracks Aquatic Ecology and Water Quality Management, Air Quality and Atmospheric Chemistry, Soil Biology and Biological Soil Quality, Soil Chemistry and Chemical Soil Quality, or Environmental Toxicology.

Environmental Systems Analysis Studies the natural and social processes involved in environmental issues. It aims to develop integrative tools and methodologies and to apply these in strategic research. Students can choose to develop such an integrated approach via the thesis track Environmental Systems Analysis Evaluation and Modelling of Ecological Systems, working in knowledge transfer projects. Students can also opt for thesis tracks in Environmental Hydrobiology, Landscape Ecology, and Landscape Management.

Environmental Policy and Economics Covers the contribution of the social sciences to environmental research. The focus is on the social, political, legal and economic aspects of environmental issues and the goal is to provide students with the skills for studying, formulating and designing innovative forms of national and international environmental governance. Students can choose a thesis track in the disciplines of Environmental Policy, Environmental Economics and Natural Resources.

Environmental Technology Concentrates on biological, chemical and physical processes for water reuse and the recovery of nutrients, minerals and energy. The aim is to fully understand these processes in order to design and optimise innovative technologies for renewable energy, closing nutrient cycles and solving environmental issues. You can choose any of these topics via the thesis track Environmental Technology.

Programme summary
We are facing a future with an increased demand for food, water, energy and other resources, which will have an enormous impact on our already heavily-burdened environment. Environmental challenges for the future include using our resources efficiently, limiting our impact on nature, and creating and changing people’s awareness and behaviour towards their environment.

The MSc Environmental Sciences programme is designed for students who want to take up this challenge in finding innovative and sustainable approaches to secure and improve the state of the environment. This programme provides insight into the socio-economic causes, the characteristics of pollution and degradation of the natural environment, and their effects on human beings and ecosystems. By taking an interdisciplinary approach, students learn to develop analytical tools and models, environmental technologies, socio-political arrangements and economic instruments to prevent and control environmental problems.

To allow you maximum flexibility in your individual course of study, there are no formal specializations and compulsory elements are kept to a minimum. This allows you to tailor the programme to your individual needs. Major thesis research can be conducted in one of the ten thesis tracks (major) and each major can be combined with a minor in Environmental Communication or Education.

Your future career
Graduates from this programme are well-equipped to continue their scientific training in a PhD programme or to begin - or continue - a professional career requiring independent scientific performance. Students obtain the knowledge and skills needed to communicate with experts from different disciplines, allowing them to play a key role in complex environmental and sustainability issues. Most graduates enter careers in environmental consultancy, research and management, while others are involved in policy development and higher education.

ADMISSION REQUIREMENTS
See page 44.

Related programmes
- MSc Climatic Studies - MSc Urban Environmental Management - MSc Earth and Environment - MSc Forest and Nature Conservation - MSc Aquaculture and Marine Resource Management.

Specialisations
Policy and Society
The core study object is the dynamics between people, organisations and institutions within policymaking and policy innovation processes, referred to as ‘governance’; relative to forest and nature conservation issues, including spatial-temporal aspects. Issues in the field of economics, public administration, communication and strategic planning are addressed in order to conserve and manage forests and natural areas in a sustainable way. Examples are: recreation, communities and natural resources, deforestation, forest governance, sustainable forestry and certification schemes.

Management
This specialisation aims to design and assess realistic and feasible management options for forests and natural areas. The approach is based on specific knowledge and understanding of wildlife management, management of forests and other terrestrial vegetation. Special attention is given to the following questions: What is the best option for wildlife conservation? Do populations need to be managed or not? How does one determine an optimal population level? How should the effects of various management activities, at different spatial and temporal scales, be evaluated? How should the perceptions of different people be dealt with? What are the best options in forest management for a specific area? How to manage nature? How to deal with abiotic and biotic bottlenecks in restoration ecology? What is the role of N and P pollution? How to restore shallow lakes? How to restore tropical forests? It is also possible to focus on specific aspects of natural resource management.

Ecology
The emphasis is on understanding the ecological processes that form the basis for the structure, composition and functioning of forests and natural areas. You can specialise in tropical forestry, landscape ecology, animal ecology, forest resource management, plant ecology, biodiversity conservation or tropical nature conservation.
Programme summary

The MSc Geographical Information Management and Applications (GIMA) offers a challenging programme in the domain of Geographical Information Sciences (GIS). It will help you to develop your knowledge and skills in the field of geo-information management and geo-information applications. As a future geo-information specialist, you have to address a wide number of fundamental issues in today’s society such as: Why is geographical information needed and how can it be used to solve problems in the broadest variety of application fields (in flood risk management, spatial planning, location-based services, orientation and navigation, location of sales outlets, spatial aspects of crime, dealing with natural hazards and humanitarian disasters)? How can proof-of-concept geo-information and geo-information technology based solutions for societal problems be designed and implemented and how can the quality and usability be evaluated? What are appropriate concepts, methods and techniques for the management of geo-information and geo-information processes, which may involve multi-disciplinary teamwork?

The GIMA programme deals with all of these issues and, teaches, among other things, how to apply and manage geo-information in organisations and projects by critically understanding and using state-of-the-art geo-information theories and technology.

Features of the programme

This Master programme is offered by four renowned universities in the Netherlands: Utrecht University, Delft University of Technology, University of Twente and Wageningen University & Research. As a student, you have access to the large pool of experts from all four universities. You can choose between a full-time (two years) or part-time (four years) programme. Exemptions are possible for students who have relevant working experience, making it possible to complete a part-time programme in approximately three years.

GIMA is a blended learning programme. It consists of distance learning (35%) with contact weeks at the four universities (15%).

Your future career

Graduates have excellent career prospects. The demand for managers and application specialists in geo-information in the professional market is constantly increasing. Our alumni are employed in both the private and public sector (by companies, consultancies, government organisations and research institutes) as managers, specialists and researchers.

APPLICATION AND ADMISSION

This programme is registered in CROHO as: MSc Geographical Information Management and Applications, code 66732. Application for GIMA proceeds through Utrecht University. For Dutch and EU/EFTA candidates the application deadline is 1 June 2017 for the programme that starts in September 2017.

Exemptions are possible for students who have relevant working experience, making it possible to complete a part-time programme in approximately three years.

GM is a blended learning programme. It consists of distance learning (35%) with contact weeks at the four universities (15%).

Programme summary

Geo-information has become increasingly important to society as the number of issues that require continuous monitoring increases. Geo-information provides the data we need to manage both the natural and social environment. It is indispensable for a broad range of domains like spatial planning, water management, nature conservation, environment management, agriculture, energy supply, disaster management and traffic and safety. The MSc GIS programme at Wageningen University & Research offers you a blend of geo-information science methods, technologies and applications. The combined use of earth observation technologies (Remote Sensing) and Geographic Information Systems for problem-solving within the environmental and social disciplines is a unique feature of the Wageningen Approach. During your study, you take courses on the acquisition, storage, analysis and visualisation of spatial data. You learn to recognise, describe and analyse problems in relevant environmental and social application fields; this includes training in the development of prototypes. You also learn about the technical and organisational role of geo-information in institutes and companies: how to communicate well, keep abreast of GI scientific and technical developments, and how to apply these developments in specific fields. Depending on your background, research topics and previous education, you can also choose relevant courses in application domains or ICT.

Your future career

Graduates in Geo-Information Science have excellent career prospects: most have job offers before they graduate. Many of our graduates work in research, either in PhD programmes or for research institutes all over the world. Wageningen UR, including Alterra, has the largest group of GI-scientists in the Netherlands. Many others are employed as consultants or project leaders for global consultancy companies like Royal HaskoningDHV, Arcadis and SWECO. And lastly, others start an IT career as a Geo-information engineer at all kinds of companies or NGOs.

If you have a Bachelor degree in the field of environmental sciences, food and agricultural sciences, (geo-)information sciences or even social sciences, you are looking to generate and use geo-information to solve complex problems like flooding, food security, climate change impact, renewable energy, urbanization or the migration of wild animals or you want to provide geo-information to the public or government? Then join the two-year Geo-information Science Master programme at Wageningen University & Research.

ADMISSION REQUIREMENTS

See page 44.

Related programmes

MSc Geographical Information Management and Applications - MSc Forest and Nature Conservation - MSc Landscape Architecture and Planning - MSc Environmental Sciences - MSc Biosystems Engineering.

Alumna Gineke Snoeren. Business consultant at ESRI Nederland. "GIS offers many opportunities and will become more important in future. That is why I decided to enrol in this programme. The course has 2 advantages. First, it does not focus solely on GIS techniques, but also at management. Second, the blended learning system is great because it combines contact teaching with distance learning. You can study in your own time with less contact hours but still contact with teachers and students at set times. Not only Dutch and foreign students take the course, but also people who are already employed in the field of GIS. You learn a lot from each other."

Alumnus Frank Salet. During his career, Frank worked within fields where the use of GIS is unique, challenging or still developing. After a few GIS positions at mostly commercial companies, he is now working at NGS in Nigeria on the evaluation of policy. For the project he has temporarily moved to Nigeria to set up the GIS work, together with a team of 20 Nigerian GIS specialists. He is now working in a multicultural environment just like during his master in Wageningen. Frank is very positive about the connection between the master and his professional career: "All courses within the master programme have formed the tools that I still use for each job I take on."

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Related programmes
MSc Geographical Information Management and Applications - MSc Forest and Nature Conservation - MSc Landscape Architecture and Planning - MSc Environmental Sciences - MSc Biosystems Engineering.
The MSc International Land and Water Management focuses on the scientific analysis of the physical, environmental, technical and socio-economic aspects of land and water management and their mutual interactions. Students develop comparative insights into the development of land and water management, take a scientific approach to various research paradigms and acquire a problem-oriented, interdisciplinary attitude towards land and water management and rural development issues. Graduates will not only be able to study these issues, but also design and propose sustainable solutions to land and water management problems.

Your future career
Graduates find jobs in a wide range of fields including design and implementation, policy making, project management and research and education. Many find a PhD position at universities worldwide. They are employed by international organisations such as the Food and Agricultural Organisation of the UN (FAO), the International Water Management Institute (IWMI), or NGOs involved in international or national development. Some graduates also work for ministries, water boards and other governmental organisations in the field of international cooperation, such as the Dutch DGIS and the German GIZ, while others find jobs in private or public institutes in their home countries. For graduates interested in design and implementation, there are also job opportunities at international consultancies.

In the Netherlands this includes firms such as Arcadis, Grontmij, Antiwa Group, Euroconsult Mott MacDonald and Royal Haskoning DHV.

ADMISSION REQUIREMENTS
See page 44.

Programme Summary
Landslides form our living environment. Natural landscapes are often beautiful in themselves; however most of those we now live in are the result of our complex interaction with the natural world. The new generation of landscape architects and spatial planners understand the challenges we face when shaping and creating the landscapes that form a key component of our living environment. Your goal is to study and design sustainable solutions for important landscape challenges, such as climate change, energy needs, health, food security and urbanisation. The programme offers two specialisations: landscape architecture and spatial planning.

Landscape Architecture
Your primary focus as a Wageningen landscape architect is the design and construction of metropolitan landscapes situated in estuaries and deltas worldwide. Your goal is to create sustainable designs based on a thorough investigation of the ecological, behavioural and aesthetic disciplines.

Spatial Planning
As a spatial planner you develop scenarios for future landscape transformation and evaluate the effectiveness of these scenarios for many different stakeholders. You study planning processes and generate and organise the theoretical and practical knowledge needed for spatial interventions.
Increasing numbers of people around the world are spending a growing proportion of their leisure time and money on tourism related activities. The economic and social impact of tourism services on the environment has grown dramatically in recent years, and this is expected to continue.

What motivates tourists to visit remote destinations? How does this travel affect local cultures and economies? And how do issues on sustainability, authenticity, identity and commercialisation fit into the picture? During the two-year MSc programme Leisure, Tourism and Environment you learn the complexities behind the transformation of certain locations into leisure and tourism environments. The programme pays special attention to concepts such as landscape, space, place, locality, authenticity and sustainability.

Fast growing and dynamic field

By joining the MSc Leisure, Tourism and Environment programme, you study the underlying issues of a fast growing tourism industry. You look at tourism from a historical and philosophical perspective, learning about social and cultural theory and how to apply these using advanced research methods and analysis techniques. The MSc integrates the role of governmental, business and ‘third sector’ organisations in the innovation process towards sustainable (tourism) development.

Leading edge learning

It’s an extremely international programme; faculty members from many parts of the world come to Wageningen and give lectures, bringing together an extraordinarily wide range of academic experience. You debate with them and others on globalisation processes as well as on the experience of tourism within the spatial, social and natural environment.

Challenging international internship

Your internship can take you all over the globe, as we have partner organisations located on every continent. We encourage you to take advantage of these, often, life-changing opportunities. The projects are incredibly diverse, ranging from studying sustainable tourism in Peru to gastronomic culture in Spain and many more. Whatever your internship may be and wherever it may take you, you will both personally and professionally benefit from it.

Develop an international perspective

Another great advantage of studying at Wageningen is that you work together with students and professionals from a wide range of international and cultural backgrounds. You critically discuss contemporary relationships between tourism and the environment, and develop your own international perspective.

You future career

You are looking for a career which builds on the knowledge and experience gained in your MSc. This may be in the areas of policy and planning, research, or consultancy, and development, or as an entrepreneur.

Many alumni can be found all over the world, working for government agencies and NGOs in the field of policy development and implementation. Others work for consultancy agencies, research institutes or network organisations that link tourism organisations with conservation institutes, or private business with government organisations and communities. Of course, if you want to continue your research, you can enter a PhD programme, either here at Wageningen or with colleague universities all over the world. We offer you an extensive and well-developed network to move your career forward.

ADMISSION REQUIREMENTS
See page 44.

Related programmes

MSc International Development Studies - MSc Management, Economics and Consumer Studies - MSc Development and Rural Innovation - MSc Applied Communication Studies - MSc Landscape Architecture and Planning.

Metropolitan Analysis, Design and Engineering

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A joint programme offered by the Amsterdam Institute for Advanced Metropolitan Solutions, a joint initiative of Wageningen University & Research, Delft University of Technology and the Massachusetts Institute of Technology in Boston.

The MSc programme will start in September 2017 on condition of approval by the Dutch Ministry of Education, Culture and Sciences and accreditation by the Dutch Flemish Accreditation Organisation (NVAO).

Programme summary

For most of humanity, our tomorrows will be in the city. A move away from old traditions and mores. The emergence of the metropolitan landscape forces us to rethink, redesign and plan the environments we live and work in. We are in dire need of innovations: tomorrow’s traditions. We will have to control energy use, develop new energy sources and new ways of saving for heating, cooling and electrifying our surroundings and for getting where we need or want to be. Mobility issues require new ways of thinking about moving. When we physically move matter - including ourselves - we need to do so with caution. We will also need to adapt the existing cities to climate change and extreme weather events, which are more and more frequent. While there seems to be a triumph of the city, this ‘triumph’ does not reach all: social and spatial segregation is increasing. Exposure to environmental pollution, noise and reliance on non-active modes of transportation is affecting our health. All of these processes are overlapping, paralleled and intertwined in chains, spheres and cycles: the metropolitan metabolism.

In this new MSc study programme, we will look primarily at how to optimize interwoven structures, systems, processes and flows: the metropolitan metabolism. We will optimize urban experiential quality, health and wellbeing. Such solutions are made possible by today’s revolution in new technologies, design methods and management and governance arrangements. But no actor or stakeholder can do this alone; metropolitan solutions require cooperation between knowledge institutes, companies, governments, cities, citizens and civil society.

ADMISSION REQUIREMENTS
See page 44.

Related programmes

MSc Geo-information Science - MSc Landscape Architecture and Planning - MSc Urban Environmental Management - MSc Environmental Sciences - MSc Nutrition and Health - MSc Food Quality Management.

Curriculum and specialisations

The MSc programme MADE seeks to educate students to be able to understand these complexities, propose an even better understanding, resulting in innovative socio-technical solutions and novel management strategies. Our research and education activities will interlink abstract theories and people’s real lives in metropolitan areas, such as Amsterdam, using the latter as a living laboratory to implement and test socio-spatial-technical innovations. The city of Amsterdam and the Amsterdam Institute for Advanced Metropolitan Solutions are host to the core mandatory courses at the start and the end of the first year of the master programme.

In between, students specialise in tailor-made, self-designed tracks in Wageningen or/and Delft. Thesis and graduation projects are carried out in the second year in the living laboratory of Amsterdam in cooperation with one of the private or public partners in the Amsterdam metropolitan region.
The world we live in is becoming increasingly urbanised. Over the past century, a great population shift has occurred from rural to urban areas. Cities now hold half of the world’s population and it is estimated that three out of every five people will live in an urban environment by 2030. This development calls for measures to control the environmental impacts of urbanisation, such as growing traffic, increasing waste emissions, deteriorating air and water quality, and rising energy and resource consumption.

Of particular concern are the speed and scale of urbanisation in the developing world as many Asian, African and Latin-American cities are not yet equipped to provide adequate housing and basic urban services. Inadequate water supply, poor sanitation, waste collection and waste management systems are the cause of serious urban pollution and health hazards. Sustainable management of the urban environment has become one of the major challenges for the future of our global population. The MSc Urban Environmental Management programme aims to equip its students with the outlook, concepts and tools to manage this urban environment.

The programme brings together four essential perspectives on the urban environment:

- Environmental quality and health
- Environmental infrastructure and technology
- Spatial planning
- Governance

Besides understanding theories and views from several disciplines, urban environmental management requires technical and managerial competences and skills for its implementation. Consequently, the programme offers a balanced curriculum of theory, tools and application. It emphasises the development of an interdisciplinary outlook, critical-thinking, analytical problem solving and practical decision making skills through a combination of teamwork, practical simulation exercises, field trips and an individual research project. The internship programme offers a valuable opportunity to gain practical experience in a country and organisation as desired. Students can conduct their major thesis research within seven thesis tracks:

- Environmental Economics
- Environmental Policy
- Environmental Systems Analysis
- Geo-information Science
- Management Studies
- Land Use Planning
- Urban Systems Engineering

Experimental thesis research will usually be part of ongoing research programmes of chair groups or research institutes of Wageningen UR. Otherwise, thesis topics originate from the student’s own research interests or from discussions with potential supervisors.

The MSc Urban Environmental Management programme is well-equipped on the topic of closing nutrient cycles by reusing treated domestic waste (water) in agriculture and aquaculture, taking the Caribbean island St. Eustatius as a case study. This research is interdisciplinary and requires combining the expertise of spatial planning, new sanitation, agriculture and aquaculture.

Your future career
Graduates from the MSc Urban Environmental Management are well-equipped with the skills and knowledge to continue their academic training as a PhD student or to begin careers as a researcher, adviser or consultant. They often work in areas like the utilities services, the manufacturing industries, or in governmental organisations.

ADMISSION REQUIREMENTS
See page 44.

Related programmes
MSc Environmental Sciences - MSc International Development Studies - MSc Landscape Architecture and Planning

Programme summary
In this programme, students learn to analyse and critically reflect on the role of communication in complex dynamic processes. They also learn to design communication strategies and programmes that are relevant to societal problem solving and innovation.

Your future career
Graduates are specialised in building bridges between various stakeholders, such as governments and citizens or laymen and experts. They work for communication consultancy organisations, government departments, hospitals, development agencies, commercial organisations, media and institutes of knowledge. Career prospects are: communication consultant (advising organisations on how to improve their communication processes); policymaker (formulating policy in cooperation with groups in society); process facilitator (managing conflict, negotiation and change); communication manager (organising internal and external communication processes of an organisation); project manager (managing the communication and collaboration between parties throughout the entire project lifespan); journalist (making scientific knowledge accessible to a broader public); communication researcher (making a systematic analysis of a communication issue).

ADMISSION REQUIREMENTS
See page 44.

Related programmes
MSc International Development Studies - MSc Development and Rural Innovation - MSc Management, Economics and Consumer Studies

Specialisations
Communication and Innovation
Students learn to analyse and strategically apply communication to deal with current societal issues, problems and challenges in life science domains such as nature conservation, nutrition and health, water management, environment and food production. Our students are trained to adopt an integrative approach that involves social science and technical innovations, fulfilling an intermediary role to enhance multidisciplinarity and interactive cooperation.

Communication is a basic element of change. Complex processes of change involve different perspectives and perceptions of the various people involved. Societal processes like climate change, poverty, disease or ecological degradation require appropriate solutions that integrate insights from all kinds of disciplines and stakeholders. Opportunities for enhancing mutual understanding and collaboration between science disciplines and society are explored. Special attention is paid to everyday life situations and how people actively deal with common issues related to the domains of the life sciences.

Students develop their own thesis tracks by supplementing compulsory communication science courses with a combination of closely linked courses; including a few courses in a life sciences domain. An internship introduces students to professional practice. The major thesis allows them to become experts in a specific area within communication that is closely linked to their personal interests and future career.

In the thesis track of their choice, students link Communication Science to, for example, Animal Production Systems, Climate Change, Ecology and Environment, Food Technology, Land Use Planning, Nature Conservation, Nutrition and Health, Organic Agriculture or Water Management.

Health and Society
More information on this specialisation is available on page 37.

Programme summary
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ADMISSION REQUIREMENTS
See page 44.

Related programmes
MSc International Development Studies - MSc Development and Rural Innovation - MSc Management, Economics and Consumer Studies
Thesis tracks

Communication and Innovation Studies
In this track, you study communication among stakeholders and disciplines in the context of societal problem solving and change. Special attention is given to the role of communication, knowledge, interpretation and innovation support strategies in bringing about organisational, policy or technological change in societal domains such as sustainable agriculture, health, environment, multifunctional land use and international development.

Technology and Development
The goal of this track is to understand how science and technology interact with international development problems, such as food security, adaptation to climate change and social justice. The approach involves analysis of how technology both mediates and is constituted in various (inter)national organisations and is constituted through social relations and institutional arrangements between various actors including farmers, scientists and policymakers. Most social problems that we face today involve science and technology, either as a cause or as a cure.

Sociology of Development and Change
This track focuses on the understanding of rural development problems worldwide from sociological and anthropological perspectives. Particular attention is paid to how local people themselves deal with problems. Field-based studies are the basis of this track on the development and social change. Themes addressed include food security, livelihoods in the context of globalisation, poverty and environmental degradation, property rights, conflict, and policy.

Programme summary

Programme summary
Health is a resource that enables people to lead an individually, socially and economically productive life. For many individuals and population health has been the domain of medical sciences. However, it is widely acknowledged that contemporary health problems are complex and cannot be solved by simply extending existing health services. Chronic illnesses such as cardiovascular disease, cancer and diabetes are important contributors to the burden of disease, as are communicable diseases such as HIV/AIDS and other sexually transmittable diseases.

There is no single cause to such health problems. Biological factors aside, lifestyle and the social and physical environment are major contributors in both a positive and negative way. Many diseases are related to the way in which people behave and take care of their own health, for example, substance abuse (smoking, alcohol, drugs), nutrition, physical exercise, and sexual behaviour. Lifestyles are often rooted in the social environment of family and friends, the neighbourhood, and the school and working environment. Aspects of the physical environment, including housing conditions, environmental pollution, the availability of green space, and the availability and accessibility of health services and facilities, affect individuals and population health. Moreover, societal changes, such as demography (e.g. aging populations, single parent families), consumption patterns, communication technology developments, globalisation and commercialisation influence the health status of individuals and populations.

Since health is influenced by such a diversity of interconnected factors, the development of cross border public health policies is essential. Within the health care system, organisations and professionals increasingly have to work together in the provision of care, prevention and health promotion. The set-up of the programme reflects its focus on societal issues in the domain of health, health promotion and health care systems. The programme covers a niche in the Netherlands by primarily taking a sociological approach to this domain, centralising the link between health and human relationships. Here, human relationships are interaction patterns and dependencies both differing in nature, scale and intensity. In conjunction with this sociological approach, anthropological and social psychological approaches are key to the social scientific analysis of health within the program.

The study programme takes a comparative perspective with respect to the empowerment of individuals, communities and populations. In other words, to what degree do people have the (financial) means to arrange their lives and are they able to use facilities for health protection and health improvement. This way, emphasis is on the societal embedding of health and activities of health promotion in relation to social processes, structures and institutions. Together with sociology, the programme combines the domains communication science and health promotion but also includes perspectives from economics, management and public policy.

Related programmes
- MSc Management, Economics and Consumer Studies - MSc International Land and Water Management - MSc Environmental Sciences.

See page 44.

ADMISSION REQUIREMENTS
See page 44.

If you have a social sciences background, read more about the MSc International Development Studies on page 35.

Your future career
The health and Society study domain is becoming more and more relevant as a consequence of changing patterns in health problems and the factors influencing health. Policymakers are becoming more aware of the impact of health policy, and recent national and international policy documents have emphasised the importance of health promotion. The improvement and sustainability of acceptable levels of health remains a major challenge. This specialisation prepares you for careers as researchers, health promoters, health policy advisors or managers of health-oriented organisations.

Related programmes
- MSc Management, Economics and Consumer Studies - MSc International Development Studies - MSc Applied Communication Science - MSc Development and Rural Innovation.
Specialisations

Sociology of Development
This specialisation addresses social transformation processes from sociological and anthropological perspectives, paying special attention to differential responses to change and the shifting dynamics of power relations at different socio-spatial levels. It focuses on the life worlds, ideologies, and organisational strategies of a variety of social actors. You will explore themes such as social unrest, the way people cope with conflicts and disasters, migration, refugees, poverty, food security and sovereignty, property rights, and access to social and natural resources crucial to livelihoods in rural and urban settings.

Economics of Development
This specialisation approaches the domain of the programme with analytical frameworks primarily composed of several branches of applied economics, such as development economics, resource economics and new institutional economics. You will focus not only on behaviour of individuals, groups of individuals and institutions, but also on the consequences of this behaviour for development at regional, national and international levels. Themes studied include food security and the global food crisis, sustainable use of natural resources, the role of agriculture in sustainable development, rural-urban income disparities, poverty and the role of institutions.

Inclusive Innovation, Communication and Development
This specialisation examines the role of knowledge, expertise and communication in sustainable development. Science, technology and communication have a bright and a dark side. They can remedy poverty, disease and environmental degradation, but may also worsen underdevelopment, conflict and inequality. To understand such dynamics, you will apply ethnographic and interaction-oriented perspectives from Science, Technology and Innovation studies and Communication Sciences. You will focus on how and why people, views and values become included or excluded in social and technical change, and on strategies for the democratisation of science, technology and communication for development.

Politics and Governance of Development
This specialisation focuses on the dynamics of political and governance processes in the domain of international development. The first major theme is about politics and reform of international arenas (UN, bilateral, private) addressing food insecurity, resource conflicts, climate change, human rights violations and their interrelations. The second major theme is about different powers of state and non-state actors in shaping property and access to natural resources. To address these themes, you will use and develop perspectives from international relations, public policy, governance studies, political anthropology and legal pluralism.

Programme summary
This programme deals with worldwide processes of development and change related to livelihoods, agro-food networks and the environment in a dynamic international context. Special attention is given to exclusion processes, equity, unique access to resources and sustainability. Social, economic, political, technological, and environmental change is studied from various perspectives and at different levels. You will develop a critical understanding of recent development theories, learn to plan and conduct research, and acquire skills to translate research findings into recommendations for policies and intervention strategies. You will learn to include the diverse values and interests of stakeholders and to work in multidisciplinary teams. You will follow one of the specialisations.

Your future career
Graduates are employed in various (inter-)national organisations as programme/project coordinator, consultant, advisor, policymaker, researcher or trainer. You could work, for example, as a policymaker in a government institute, as a programme coordinator in an international non-governmental or intergovernmental organisation, as an advisor in a private company, or as a researcher and/or lecturer at a university or research institute. Examples of organisations include: FAO, World Bank, European Union, UTZ Certified, Oxfam Novib, Rabobank Foundation, CARE, Sustainalytics and UNICEF.

ADMISSION REQUIREMENTS
See page 44. If you have a background in a technical or life sciences field and an interest in development studies, read more about the MSc Development and Rural Innovation on page 34.

Related programmes
MSc Development and Rural Innovation - Health and Society (specialisation) - MSc Applied Communication Science - MSc International Land and Water Management - MSc Leisure, Tourism and Environment - MSc Management, Economics and Consumer Studies.
Also at Wageningen University & Research

MOOCs
Did you know that Wageningen University & Research offers several free online courses? These Massive Open and Online Courses (MOOCs) are free of charge and anyone can participate. It is a great way to familiarize yourself with some of the teachers and courses of Wageningen University & Research.

Available MOOCs:
- Introduction to Animal Behaviour
- Sustainable Urban Development
- Sustainable Soil Management
- BioBased Economy
- Technology-Based Entrepreneurship

Xseries are a number of bundled courses that provide you with a deeper understanding of a topic. All MOOCs that are included in a Xseries can also be taken as stand-alone courses.

Xseries
Nutrition: Healthy Food for Better Living
You are what you eat! Learn how your diet impacts your health.
Includes:
- Macronutrients and Overnutrition
- Micronutrients and Malnutrition
- Food Safety

Food Security and Sustainability
How can we sustainably feed an increasingly growing world population.
Includes:
- Crop Production
- Systems Thinking and Environmental Sustainability
- Food Access

Future plans
We're continuously developing new online courses. Currently we are bundling more courses around topics such as nutrition and sustainability.
We're planning to release a series around Biobased Economy in 2017-2018.
For the most up-to-date information, please visit www.wur.eu/moocs

International Joint and Double Degree programmes
Wageningen University & Research offers, in collaboration with European Partner Universities, several possibilities to do your MSc programme partly in Wageningen and partly at a partner university. It is a great opportunity to gain international and intercultural experience.

At the moment we offer Joint Programmes in the field of:
- Agricultural development
- Agroecology
- Animal management
- Animal nutrition and feeding
- Aquaculture
- Food Studies
- Consumer studies
- Available programmes

The list of international joint programmes is changing every now and then. For the most up-to-date information, please visit www.wur.eu/jointprogrammes

What’s the difference?
The difference between a regular Master programme at Wageningen University & Research and a Joint/Double Degree is that a part of the study programme is taken at a partner university abroad. When you study for a Double Degree you will even receive two diploma’s when you graduate!
Studying in Wageningen

International character
Wageningen University & Research has a very international character with students coming from over 110 different countries. Through partnerships with numerous Dutch and international companies and governments, Wageningen University & Research has become a major university in Europe and one of the best universities worldwide in the field of Life Sciences. As a result, students have no problems finding internships, challenging work experience posts and career opportunities around the world.

www.wageningencampus.com. organises a wide range of activities and services for students. student associations and each study programme has its own study association that provides study options. Studying in Wageningen guarantees you premium quality education and an international quality benchmark on your curriculum vitae.

www.wur.eu/whywageningen.

Campus & Facilities
With 70,000 m2, Wageningen Campus equals the size of 11 soccer fields. It offers excellent student facilities and it is a place where students, teachers, researchers and staff from all over the world come together and exchange ideas. Forum is Wageningen University & Research’s largest education building. The main library is located in Forum and is open 14 hours per day. There are several places on campus where you can relax and enjoy a drink with your fellow students like the ‘Grand Cafe’ at Forum, ‘the Spot’ in Orion, or you can have lunch at the ‘Restaurant of the Future’. Nearby, sports centre ‘De Bongerd’ offers over 60 different sports ranging from tennis, squash and indoor biking to football, rugby and athletics. There are multiple student associations and each study programme has its own study association that organises a wide range of activities and services for students.


Housing
Most Dutch and international students of Wageningen University & Research also live in Wageningen. Idealis is the biggest student accommodation provider in Wageningen and you can apply for one of the several thousands of housing units they own. You can also try to find suitable housing via HousingDesk Wageningen or via one of the national organisations mediating housing in the Netherlands. Idealis will provide prospective students with information about the application procedure for student housing in Wageningen. Idealis will contact you approximately two to three months before the start date of your programme in Wageningen. After receiving the information about the application procedure you can register with Idealis as a houseseeker and respond to the available housing offers on their website. If your current residential address is more than 130 kilometers away from Wageningen, you qualify for distance priority.

www.wur.eu/housing

The University
Wageningen University & Research is one of the leading international universities in the field of healthy food and living environment. Here, you will focus on current and future global issues that are of increasing importance to both industry and government. You are ensured personal guidance throughout your student career with a teacher-student ratio of 1:7. Which allows you to make the most of all the study options provided. Studying in Wageningen guarantees you premium quality education and an international quality benchmark on your curriculum vitae.

www.wur.eu/housing

Wageningen town
The university is centrally located in the Netherlands. The cities Amsterdam, Rotterdam and The Hague are only one-hour travel by train from Ede-Wageningen’s station and Utrecht only 25 minutes. From train station Ede-Wageningen to Wageningen Campus is a 12-minute bus ride. Wageningen is built on ‘bicycle scale’ meaning that all university facilities and the city centre are within cycling distance. There are historic and modern buildings, high-rise student flats, works of art and botanical gardens that all add to the diversity of Wageningen. More than 10,000 students study in Wageningen and they, accounting for more than 20% of the population, turn Wageningen into a university town. The many international students, professors and researchers contribute to the international atmosphere. Wageningen has a thriving cultural and social life. Theatres, cinemas, student clubs, bars, nightlife and restaurants create the elegance of a city in a beautiful rural setting. The nearby flood plains of the Rhine River and National Park the Veluwe are ideal for those who enjoy nature, hiking, running or cycling.

Structure of the programme
Wageningen University & Research offers 31 Master of Science (MSc) programmes and the language of instruction is English. All Master study programmes are full time, have a duration of two years and are comprised of 120 ECTS credits. In addition to this, it is possible to follow one of the two part-time online master specialisations from all over the world through the university’s Virtual Learning Environment. This pioneering way of studying is an ideal opportunity for you if you want to obtain a full Master degree, but are not able to spend two full years away from home.

In Wageningen, the academic year is split up into six periods. During each period, you follow one or two courses that are completed with an exam. The first, second and third period, and the fourth, fifth and sixth period run parallel to the European semesters, which means you can combine your courses in Wageningen with courses at other universities without running into scheduling problems.

The first year of the Master study programme is comprised of mandatory courses, but you also have several elective courses which allow you to specialise within your programme.

The second year includes an internship and a master thesis. The subject of the thesis is developed in consultation with a senior staff member. Students usually propose their own thesis research topics while taking ongoing research into account.

Annual Introduction Days
The Annual Introduction Days (AID) are held prior to the start of the Master programme and are highly recommended for all new students. During the introduction programme, you can become acquainted with Wageningen, your fellow students and the university:

www.aidwageningen.nl/site/en/.
Admission & Application

General admission requirements
All MSc study programmes at Wageningen University & Research have the following general admission requirements:

- A bachelor degree (or equivalent) in a field of science relevant to the selected programme;
- Sufficient quality of the BSc degree as shown by an average mark of at least 7 (Dutch system), a Grade Point Average (GPA) of at least 60 (US system) or a classification as 2nd upper (UK system); (visit www.wur.eu/admission for specific requirements)
- Good working knowledge of mathematics and/or statistics;
- Fluency in English, both written and spoken (see schedule).

In addition to these general requirements, specific requirements may apply to individual programmes. See the website of the specific MSc programmes for more information.

English Language Proficiency

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navo</td>
<td>7.0</td>
</tr>
<tr>
<td>Vwo</td>
<td>6.0</td>
</tr>
<tr>
<td>Rate</td>
<td>60</td>
</tr>
<tr>
<td>IELTS</td>
<td>6.0 (writing: borderline or pass) 7.0 (writing: pass)</td>
</tr>
<tr>
<td>TOEFL</td>
<td>90 internet (speaking: borderline or pass) 92 internet (speaking: borderline or pass)</td>
</tr>
<tr>
<td>Cambridge FCE</td>
<td>Pass at grade B or above</td>
</tr>
<tr>
<td>Cambridge CAE</td>
<td>Pass at grade C or above</td>
</tr>
<tr>
<td>Cambridge CPE</td>
<td>Pass at grade C or above</td>
</tr>
<tr>
<td>German Abitur</td>
<td>06 Punkte for English</td>
</tr>
<tr>
<td>Belgium ASO 1500</td>
<td>60 for English 70 for English</td>
</tr>
</tbody>
</table>

Study Expenses

Study expenses consist of tuition fees, research fees, living expenses (housing, foods, drinks) and other expenses (insurance, residence permit, handling fee, books, study materials). These expenses are a indication only, see the website www.wur.eu/tuitionfee for up-to-date information.

<table>
<thead>
<tr>
<th>EU/EEA students 2017/2018</th>
<th>Non-EU/EEA students 2017/2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>£22,100 / year</td>
<td>€17,600 / year</td>
</tr>
<tr>
<td>£1,400 / year</td>
<td>€10,680 / year</td>
</tr>
<tr>
<td>£1,500 / year</td>
<td></td>
</tr>
</tbody>
</table>

*For master programmes the study expenses are: EU Tuition Fee: €2,100; non-EU tuition Fee: €9,680
**A one-time fee to cover research expenses during internship and/or thesis in the second year.

Application Deadlines

<table>
<thead>
<tr>
<th>Dutch, EU/EEA students</th>
<th>Non-EU/EEA students</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 1, 2016</td>
<td>December 1, 2017</td>
</tr>
<tr>
<td>October 1, 2016</td>
<td>May 1, 2017</td>
</tr>
</tbody>
</table>

Study programme

- Bioinformatics
- Biotechnology
- Biology
- Environmental Sciences
- Forest & Nature Conservation
- Molecular Life Sciences
- Organic Agriculture
- Plant Biotechnology
- Plant Sciences

Admission & Application: Application procedure

STEP 1: APPLICATION

- A completed MSc application form.
- BSc Degree. A copy of your Bachelor degree (or equivalent as recognized by Nuffic) in Dutch or English (or a certified English translation).
- Curriculum Vitae.
- Sufficient English language proficiency test results.
- A statement of motivation.
- A completed application form.
- An offer, you will be put on the waiting list.
- Admitted

STEP 2: RESULT AND CONFIRMATION

Your application for admission will be evaluated by the Academic Committee on Admissions. You will receive a registration letter by email containing a username and password with which you can check your application status in our Student Tracking Admissions Registration System (STARS).

STEP 3: PAYMENT

Upon receipt of your confirmation form, an invoice will be sent to you or your sponsor. The invoice includes important information about the payment. The required amount should be paid into our bank account before the deadline as mentioned on the invoice (www.wur.eu/tuitionfee). Do not make any payments before receiving the invoice.

STEP 4: VISA (NON-EU/EFTA NATIONALS ONLY)

National of countries to which Netherlands must submit proof of graduation before July 1.

STEP 5: HOUSING AND INSURANCE

Part of the Dutch immigration policy is that all international students who require a residence permit will be subject to a yearly study progress check. Students must obtain at least 50% of the credits per year (or part of a year). The immigration office will cancel the residence visa of students who do not meet this criteria.

Minors

Do you want to improve your chances of enrolling at Wageningen for a Master's programme? Are you interested in a specific topic that you cannot find at your own university? Or, do you want to know what it is like to study in Wageningen?

Choose one of the 60 minors at Wageningen University & Research. Minors consist of a cluster of courses based on a specific theme. Read more about minors at www.wur.eu/minors.
1. Apply online

Gather all your documents & fill out the application form on:
www.wur.eu/apply

Students enrolled in one of the online Master programmes will receive more information about how to finalise enrolment after the invoice is paid.

The international Office of Wageningen University will apply for the required visa for you. You cannot apply for it yourself!

You will be contacted 2 to 3 months before the start of your programme by Idealis (the housing cooperation of Wageningen) on how to arrange housing.

Arrive at least 2 weeks before the start of your lectures to make sure you have time to settle, join the introduction activities and finalise all your paperwork.

Enjoy Wageningen!

Meet us

Online

Online Open Days
Would you like to know more about our Master programmes and get a feeling of what it’s like to study in Wageningen? Join the Online Open Day and meet our students, watch our videos and ask all your questions.
Visit www.wur.eu/masteronlineopenday for more information.
The Online Open Days will take place on:
> 17 November 2016
> 30 March 2016

Skype chat session
During a chat session on Skype you can ask all your personal questions to one of our recruitment officers. Please fill out the form on www.wur.eu/meetus to register for an online meeting.

Student coaches
Student coaches know from personal experience how difficult it can be to choose a Master programme, as they are students themselves. They can help you with all your questions about the possibilities after your Bachelor studies. You can find the student coaches at www.wur.eu/studentcoach.

Worldwide webinars
Online presentations about some of our Master programmes are organised, completely free of charge and accessible from all around the world on mobile devices and computers with internet access. Find out more about our webinars by visiting www.wur.eu/webinars.

Social Media
For more information about studying at Wageningen University & Research, news and student activities, you can follow us on Social Media:
www.facebook.com/wageningenuniversity
www.twitter.com/uniwageningen
www.pinterest.com/uniwageningen
www.instagram.com/uniwageningen
www.youtube.com/wageningenuniversity

In Dutch

Would you rather read more about our Master of Science programmes and Wageningen University & Research in Dutch? Please visit www.wur.nl/master.

In your country

Contact a representative
Wageningen University & Research has representatives all over the world to answer your questions. They speak your language and know the university and the Netherlands well. Go to www.wur.eu/representatives and contact the representative now.

Education fairs
Representatives of Wageningen University & Research give presentations and attend many education fairs and universities worldwide.

For a complete overview of where you can meet us on campus and in your country, please visit www.wur.eu/meetus.

On campus

Master Open Days
During the orientation days you will visit the university’s campus, meet students and speak with study advisors from each programme. These Open Days will take place on:
> 15 December 2016
> 7 April 2017

Be a student for a day
Would you like to know more about a particular Master programme? Experience the study programme yourself and walk along with a current student of the programme of your interest.

In Dutch

Would you rather read more about our Master of Science programmes and Wageningen University & Research in Dutch? Please visit www.wur.nl/master.

Meet us
Besides offering online Master of Science programmes, Wageningen University & Research is offering many interesting free online courses (MOOCs) on education platform edX.org. Start your journey to Wageningen online by following an online course. For more information, go to www.wur.eu/moocs.

Wageningen Online Education

Student Information Desk
+31 (0)317 48 48 48
study@wur.nl

Publication date July 2016. Although this brochure has been compiled with the greatest care, no rights may be derived from any of the contents, since changes may occur. For the most up-to-date information, please visit: www.wur.eu/master

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The Netherlands

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P.O. Box 414
6700 AK Wageningen
The Netherlands

www.facebook.com/wageningenuniversity
www.twitter.com/uniwageningen
www.pinterest.com/uniwageningen
www.instagram.com/uniwageningen
www.youtube.com/wageningenuniversity

NEW
STUDY ONLINE
at Wageningen University & Research
www.wur.eu/onlineeducation