An interdisciplinary programme on complex global challenges

Meeting the demand for clean water and sufficient food
Our for a further expanding world population,
future preventing depletion of our natural resources
matters! maintaining Earth's biodiversity.

These are just some of the complex global challenges that we are facing today. In order to ensure a long-lasting and prosperous future on earth, we need to deal with these challenges in a pro-active way and come up with innovative and sustainable solutions.

To be able to realize this, we need people who are able to develop a constructive perspective on highly complex issues. People with the capacity to combine knowledge of Earth's nature with knowledge of human behaviour, politics, economics, planning, and communication. People who know how to translate scientific knowledge to policy makers, managers and the general public. And who know how to build bridges between the various interests and concerns of scientists and non-academic stakeholder in joint research projects.

The University of Amsterdam has developed a bachelor programme to support the demand for such knowledge brokers.

Building bridges to the future

The bachelor *Future Planet Studies* started in 2008 and is designed to meet the needs of companies and organisations operating in fields where people, planet and profit convene. It aims to deliver experts with an interdisciplinary background who know when, where and how to use their specialist knowledge. Experts with indispensable knowledge for companies, governments and organisations that want to make a contribution to the sustainable management & development of our planet.

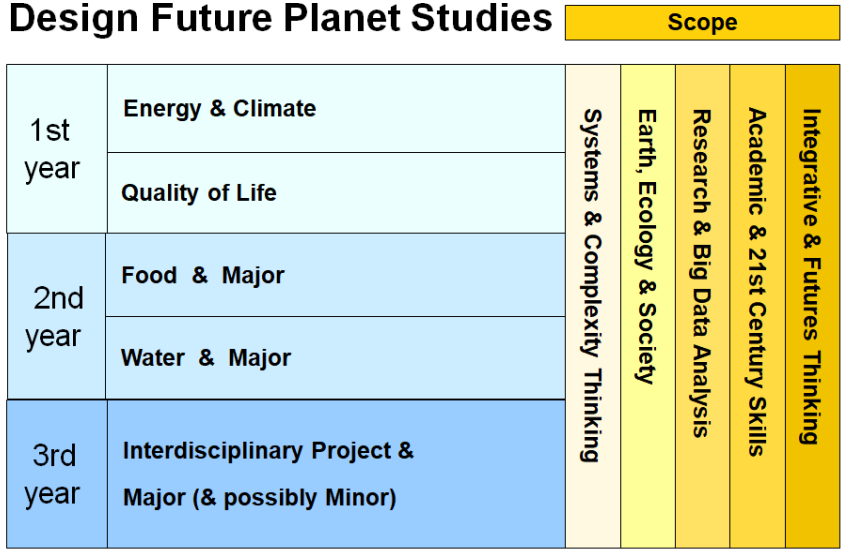
Beside natural and social scientific knowledge and capabilities, their input also implies vision. A vision resulting from a continuous research and learning process that is stirred by asking the right questions, making use of the available evidence & expertise, and integrating new insights in the existing body of knowledge.

Future Planet Studies is about connecting science to society by building bridges between 'the elements' and the people who live with these elements, now and in the future.

Integrating a broad range of knowledge and know-how within actual topics

The challenges we are faced with are complex and cannot be tackled from a monodisciplinary perspective. Consequently, *Future Planet Studies* is set up as an interdisciplinary bachelor. The programme is not organised around disciplinary courses, but built around real-world, tangible topics.

Each semester, a particular theme is put into focus. Within each of these themes, natural and social scientific knowledge and skills are integrated, as is reflected in the various pillars underlying the programme (see scope):



In the first semester, students learn how to look at our planet as a self-regulating system influenced by both natural factors (earth & ecological processes) and human factors (political & socio-economic processes). They learn to develop innovative perspectives on future challenges such as the interrelated problems of energy supply and climate change.

In the second semester, we address the question whether a high-quality human society can coexist with the protection of the quality of natural life. Is it possible to strife for continuous development and simultaneously safeguard our environment?

International orientation & programme

Since we are dealing with global issues, *Future Planet Studies* has an international orientation. From the second year onwards, the programme is fully in English. This enables us to invite students from all over the word to come to Amsterdam and participate a semester in *Future Planet Studies*. We offer half year programmes (minors) on the issues of Food & Water:

Programme on Food

Semester 3: Sept – Dec (+ Jan)

- Dealing with Complex Problems: The Food Issue
- Food Interventions
- Plant-Soil Interactions in Food Production Systems & Practical
- World Food & Ecosystems
- Remote Sensing
- Matlab
- Introduction to Spatial Planning
- Food & the City /Future of Food
- Governance & Systemic Transformation
- Political Economy of Trans-national Food Chains
- Interdisciplinary Project on Food

Programme on Water

Semester 4: Feb – April (+ June)

- Water Quality
- Digital Earth
- From Data to Evidence
- Desertification & Land Degradation
- Water Management
- Geographical Information Systems
- Water Governance
- Spatial Implications of Environmental Change
- Scenario Planning
- Interdisciplinary Project on water

Semester 3: Food and Natural Resources

Are we capable of producing sufficient food for the expanding world population? If so, what do we need to do to realize sustainable forms of food production, and prevent the depletion of our natural resources? We study the issue from various perspectives and assess the strengths and weaknesses of innovative methods such as genetically modified organisms. We look at the possible implications for the ecosystems around the globe and the political economics of the world food system. And you learn how to use modern techniques such as Remote Sensing and Geographical Information Systems. In an interdisciplinary project on food, students from various backgrounds can try and combine the knowledge they have gained to come up with new, integrated insights.

Semester 4: Water Management & Water Supply

With Holland situated in a delta area, the Dutch have live-long experience in learning how to live with the water. In view of the expected climate changes, it seems important to see how this knowledge and expertise in water management can be used in other, comparable contexts. Considering the growing global demand, questions about how to govern the use and availability of drinking water deserve serious attention too. We also focus on the relation between water shortage and water surplus. Students can further develop their research skills on water-related issues by participating in an interdisciplinary project.

Admission Requirements

The international programmes on Food & Water are open to students:

- with sufficient fluency in English, i.e. master the language at C1 level, as can be shown by an International Baccalaureate certificate, an IELTS test score > 7 or a TOEFL test score ≥ 95, or earlier academic education in English.
- with a background in social science that have successfully completed one semester (i.e. a study load of at least half of an academic year) in natural sciences courses related to Earth Sciences, Environmental Sciences, Biology, Ecology or Climatology;
- with a background in one of these natural sciences. This allows in principle for admission to all courses, exceptions being World Food System and Water Governance, as these courses require some back-ground knowledge in economics, human geography or spatial planning.

Depending on their curricular background, a tailor-made programme can be put together that fits the needs and motivation of the individual student. Note: The available places for international students per course are limited.

Descriptions of the courses can be found on our website:
http://studiegids.uva.nl/xmlpages/page/2019-2020-en/search-course

For more information on the programme or exchange of ideas about our bachelor *Future Planet Studies*, please contact us.

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