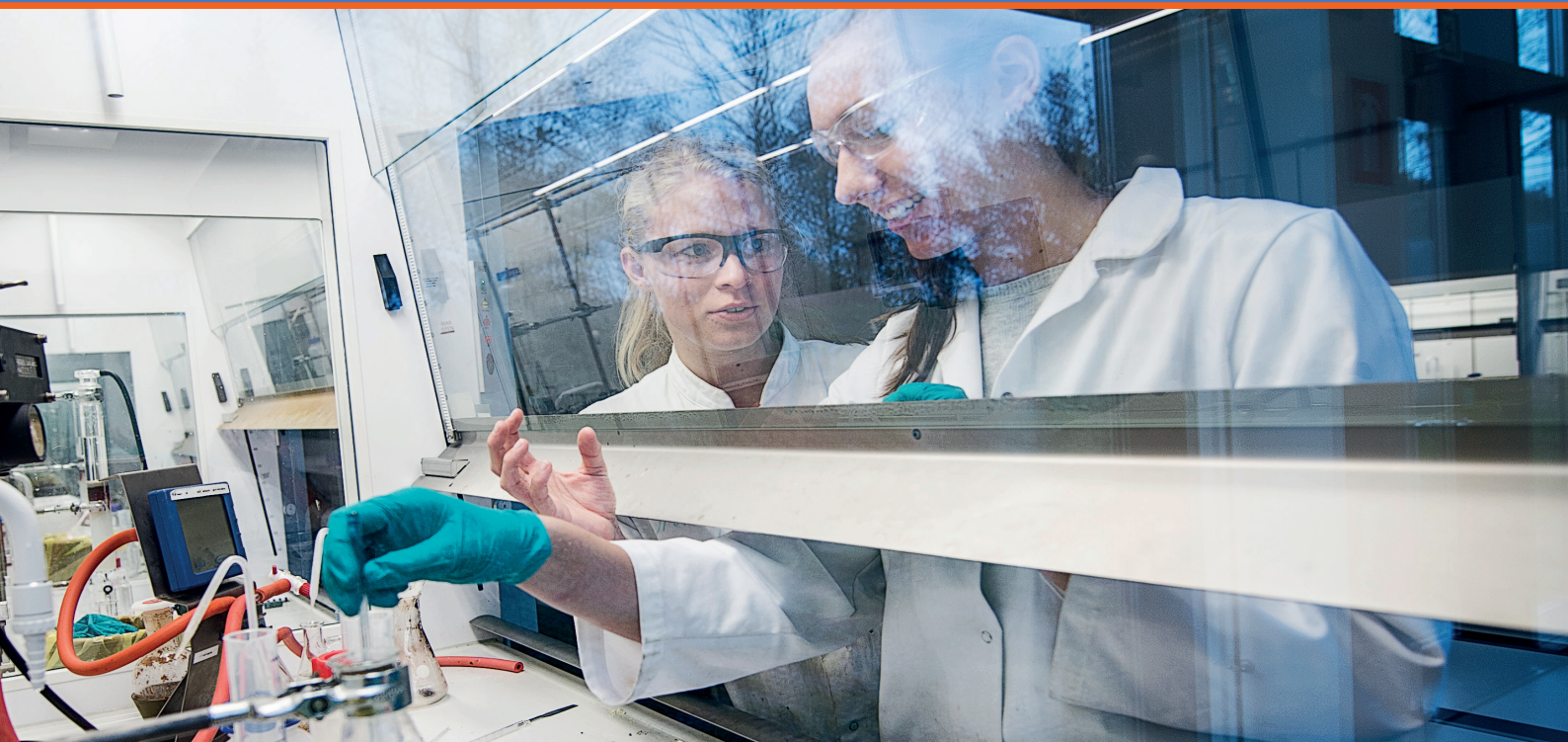
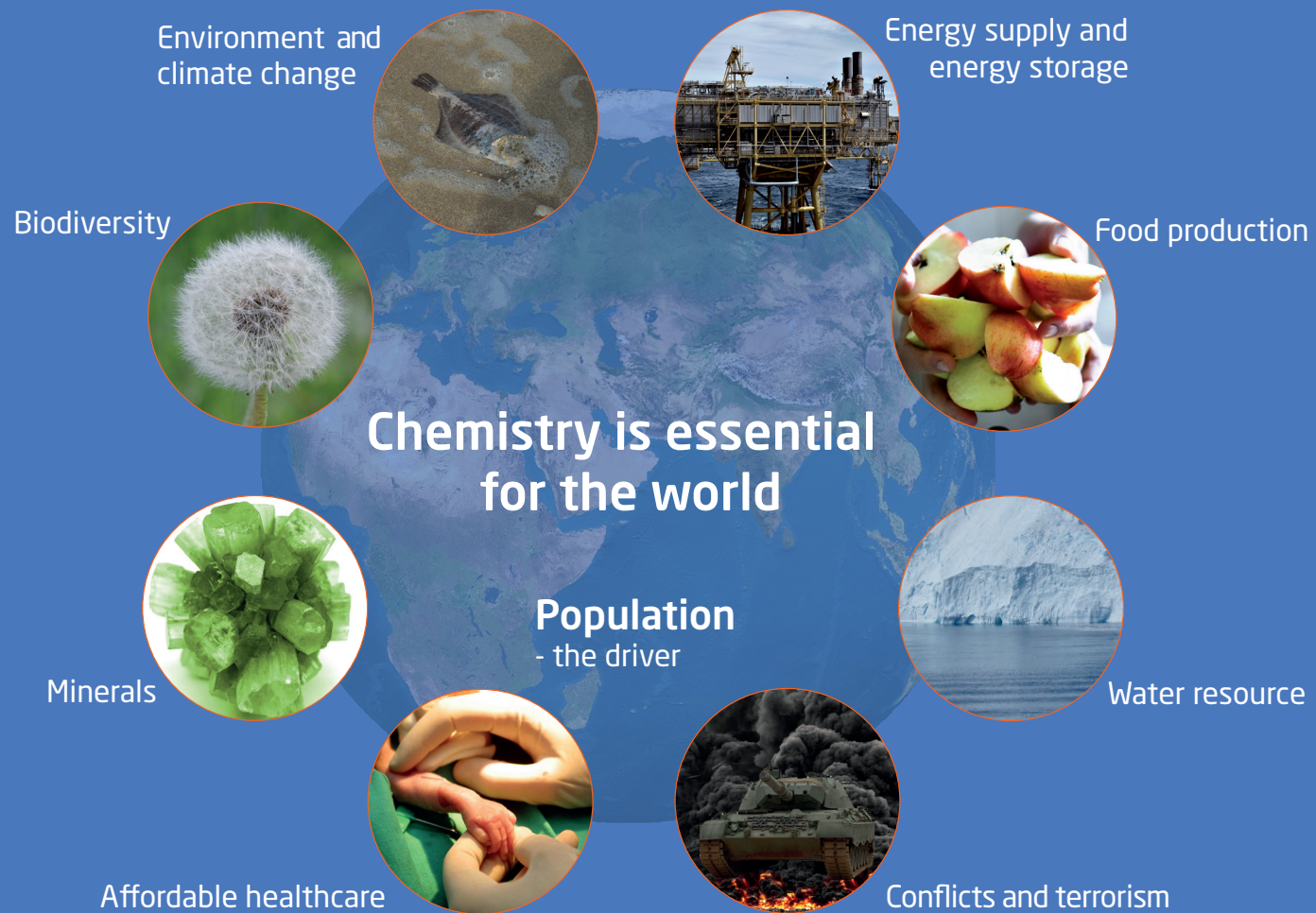


Advanced and Applied Chemistry

MSc programme





MSc programme in Advanced and Applied Chemistry

The MSc programme in Advanced and Applied Chemistry focuses on chemical and biological systems at both molecular and nanoscale level, and it covers advanced courses and projects within the key disciplines of chemistry.

Focus

The MSc programme provides you with broad knowledge of the design of advanced materials - at both theoretical and experimental level - through courses covering the chemistry, synthesis, physical chemistry and production of such materials. You will have the opportunity to work in close collaboration with both Danish and international companies - either as part of the courses, as an individual project or while writing your thesis. The programme attracts many foreign students, so you will be part of a very international study environment.

Prerequisites

Students with a Bachelor of Science degree (or equivalent) in natural science or technology, obtained at an internationally recognized university, are eligible for enrolment. The following Bachelors of Science in Engineering from DTU are directly qualified:

- Chemistry and Technology
- Environmental Engineering
- Human Life Science Engineering

The following Bachelors of Engineering from DTU are directly qualified to the programme:

- Chemical and Bio Engineering
- Chemical Engineering and International Business

However, a successful MSc study, in all cases, contingent on having the right prerequisites from the bachelor programme including a solid background in chemistry. BScs and B Engs from other institutions in Denmark may be admitted based on a concrete assessment by the head of study.

International students

Applicants for admission to the MSc programme in Advanced and Applied Chemistry should hold a bachelor degree in chemical engineering, chemistry, chemical technology, environmental engineering or related fields. Admission is based on a concrete assessment by the head of study.

Specializations



The MSc in Advanced and Applied Chemistry offers a high degree of flexibility in the students' individual study plan. You can design your own study programme and career by choosing from the wide range of courses offered at DTU with emphasis on areas such as analytical chemistry, theoretical chemistry, materials or sustainable chemistry.

The MSc in Advanced and Applied Chemistry has three optional study lines. The five study lines are fixed programmes of study that have extra high requirements to the choice of courses and projects compared to the general MSc programme.

Although following a study line is not obligatory, it allows you to specialize within a specific area. The five study lines on Advanced and Applied Chemistry are:

- Catalysis and Nanotechnology
- Molecular Physical Chemistry
- Polymer Engineering
- Protein Chemistry
- Synthesis and Medicinal Chemistry

General competences 30 ECTS credits	Electives 30 ECTS credits
Technology specialization 30 ECTS credits	Thesis 30 ECTS credits

- High degree of flexibility

At the same time you have the opportunity to choose and achieve a high degree of specialization in a number of areas, for example:

- Chemistry at the nanoscale
- Bioinorganic chemistry
- Analytical chemistry, spectroscopy and crystallography
- Computer simulation of chemical structures and reactions
- Transport processes

An international environment

About 1/3 of all MSc students - as well as a large percentage of professors - at DTU are foreigners which contributes to the versatile and international learning environment.

One of the most characteristic features of the Danish educational system is the emphasis placed on student involvement. And active student participation has a high priority at DTU.

Compared to most other countries, the relationship between professor and student is quite informal in Denmark.



Study abroad



DTU encourages all its students to study a semester at a foreign university. DTU has a wide range of exchange agreements with international universities.



Career

Read more about our programme:
www.dtu.dk/aac



The MSc in Advanced and Applied Chemistry provides excellent scope for employment in either private or public companies. The study programme has an extensive focus and offers a wide variety of courses which - depending on the courses chosen - can qualify you for jobs in the chemical industry (including catalysts and polymers) and the pharmaceutical industry. Some 'Advanced and Applied Chemistry' graduates are expected to pursue a PhD, thereby qualifying for research positions in industries and academia.

Our graduates are employed by the following companies, among others: Danisco, Novozymes, Coloplast, Hempel, Rockwool, Haldor-Topsøe, and Lundbeck. Some of them also find employment in the public sector, for instance in teaching.

The MSc in Advanced and Applied Chemistry is a cooperation between the Department of Chemistry and the Department of Chemical and Biochemical Engineering.



Head of Studies

■ Professor Georgios Kontogeorgis, DTU Chemical Engineering



Coordinators

■ Associate Professor Anders E Daugaard, DTU Chemical Engineering ■ Professor Jens Øllgaard Duus, DTU Chemistry ■ Professor Rasmus Fehrmann, DTU Chemistry ■ Associate Professor Niels Engholm Henriksen, DTU Chemistry ■ Associate Professor Günther H. J. Peters, DTU Chemistry



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