Technical University of Denmark

Honours Programme, Industrial Track
MSc Chemical and Biochemical Engineering

Honours Programme in Chemical and Biochemical Engineering

In September 2009 DTU established honours programmes within the context of the regular MSc programmes (see:www.dtu.dk/english). The programmes are open to highly qualified international and Danish students. You can choose to focus your Honours Programme in Chemical and Biochemical Engineering on industrial research and development by following a special Industrial Track.

Industrial Track

The superb industrial contacts and the high international standing amongst the faculty of the Department have made it possible to form an industrial track within the Honours Programme. The philosophy is to enable the very best and most motivated students to gain from high-level, world-class industrial contacts in major Danish enterprises with operations all over the world. In this way we work to open new and exciting career prospects for the students within industrial research, innovation, process design, operation and management.

The programme is coordinated with leading international Danish companies. Presently FLSmidth, Lundbeck, Novozymes, Haldor-Topsøe, and Hempel support the programme. Admission to Industrial Track is subject to acceptance by a partner company.

DTU

The Technical University of Denmark (DTU) is Scandinavia's leading technical university and one of the top technical universities in Europe. It has outstanding facilities for education and research in a large, open campus just north of Copenhagen. Masters courses are taught in English, in an innovative and open-minded learning environment.

DTU Chemical Engineering

The Department of Chemical and Biochemical Engineering at DTU has a world-class reputation in research and teaching in all the main areas of Chemical and Biochemical Engineering. The Department has a long history but today operates in modern laboratories and plant, with state-of-the –art experimental facilities. Courses are taught by a vibrant and committed faculty which has a significant number of international members. The Department's student organization is recognized as a Student Chapter of the American Institute of Chemical Engineers.

Special features

The honours programme, Industrial Track has some special features over and above the normal MSc programme. These are:

Mentoring

From the start ready access to an academic and also an industrial mentor. An individual study plan will be designed in collaboration between the student, the academic and the industrial mentors. In this way, industrial involvement in the programme is present from very early in the programme. Regular meetings will take place between students and the mentors to discuss progress, development and career guidance.

Industrial experience

Up to two industrial projects can be carried out during the summer (between years 1 and 2) in a participating company in Denmark, or abroad, so that the total programme is completed in 2 years (4 semesters). The projects may be with one or more companies dependent on the study plan of a given student.

International experience

The Department has many international students, staff and faculty and in the honours programme special emphasis will be placed on gaining international experience. For students from outside Denmark there will be opportunities to learn about Danish culture and language. It is a requirement that any student

at graduation has had at least a semester of study abroad, either during the bachelor study or as part of the honours programme. Additional international experience is gained through participation in a conference, a summer school abroad, a summer job at a company outside Denmark, or a project carried out abroad.

Industrial research

An industrial research project focused on any topic of chemical and biochemical engineering with industrial relevance with particular opportunities in product design, process design or production will be undertaken. The projects will be supervised in close cooperation with PhD students at the cutting edge of new research in topical areas such as energy, biotechnology, catalysis and functional materials. The subject and scope of the research project are defined in close collaboration with the mentors.

Preparation for industry

Emphasis on research, innovation and development to prepare candidates for a top-level industrial career.

Preparation for a PhD

Possibility for a PhD scholarship upon successful completion of the MSc programme.

Programme structure

A total of 120 ECTS points make up the programme divided into four areas:

- General competences (30 ECTS).
- Technological specialization (30 ECTS).
- Electives (maximum 30 ECTS).
- MSc thesis (research project) (30-35 ECTS). Under the guidance of an academic and industrial supervisor, the projects offered will all have elements of fundamental research, innovation and application.

General competence courses, technological specialization courses and electives in the study plan must be planned in collaboration with the academic and industrial mentor and are subject to approval by the Head of Studies. The courses and electives (40-45 ECTS) and the research project (30-35 ECTS) must have an industrial and application-oriented content.

This structure has been deliberately developed to allow flexibility, so that students can build their own syllabus to suit their needs, motivation and career aspirations. The mentors will provide the suitable guidance where appropriate.

General Competences

(30 ECTS)

- Process or Product design
- Transport Processes or Model Analysis
- GMP or Management or Risk Assessment

Technological Specialization

(30 ECTS)

- Choose from about 20 DTU Chemical Engineering courses and additional courses in other DTU departments

Electives

(25-30 ECTS)

- Any and all MSc-level courses from all of DTU are allowed including special courses planned by the student in collaboration with the mentors

MSc Thesis

(30-35 ECTS)

- DTU Chemical Engineering, in cooperation with industry and potentially other DTU departments

Fees

No fees are required for EU/EEA residents. Non EU/EEA students will be charged tuition and fees. Scholarships may be available to cover tuition and fees, living expenses and accommodation.

Admissions

The objective is to establish a high-level programme, and therefore admission is for highly qualified and dedicated students only. A first degree in chemical engineering or a related engineering subject or in natural sciences will provide the necessary background. Applicants should satisfy DTU's general requirements for admission to honours programme. All short-listed candidates will be expected to attend an interview.

Full information about the steps in the admission is available from DTU's website. DTU's standard admission procedure should be followed, but it should be clearly stated that application is for the Honours Programme, Industrial Track.
See www.dtu.dk/english/Education/msc/Honours-Programmes and www.dtu.dk/english/education/msc/admission-and-deadlines

Further information is available from:
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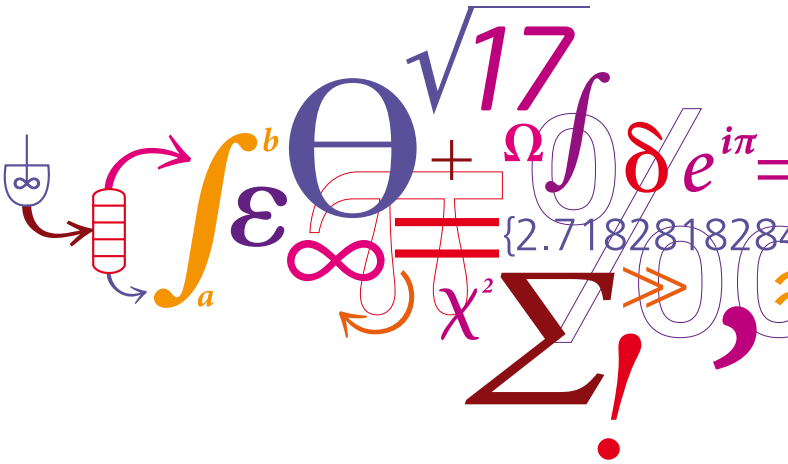
Department of Chemical and Biochemical Engineering, DTU

It is recommended to contact the Department before or parallel to the formal application.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DTU Technical University of Denmark

Honours Programme

http://www.dtu.dk/english/Education/msc/Honours-Programmes
http://www.dtu.dk/Uddannelse/Kandidat/Honours-Programmes

International applicants

Application Procedure Info

International Affairs
Phone: +45 4525 1023
Email: international@adm.dtu.dk
Office Hours: Monday - Friday 11 am - 2 pm

Danish applicants

Ansøgningsoplysninger

Studievejledningen
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Åbningstid: Mandag - fredag 11 - 14

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