The Department of Chemical Engineering at the Technical University of Denmark (DTU) invites non-European chemical engineering students to participate in an experimental course in chemical engineering/process technology. The course takes place on up-to-date pilot plant facilities in a programme, which combines detailed theoretical and practical engineering experiences with social get-together in an international student atmosphere and opportunities to discover wonderful Copenhagen and the historic and scenic countryside.

ENTRY REQUIREMENTS
The course is based on theoretical knowledge in unit operations, heat and mass balances, general process technology, reaction engineering and kinetics, process control, flow diagrams and simple chemical analytical methods.
In addition ordinary university level background in inorganic, organic, thermodynamics and mathematics is required.
The students must have acceptance from their home university to attend.

CONTENT
The course is a special designed version for non-European students of the ordinary DTU course in large scale unit operations laboratory. In teams of two persons 7 exercises including reports are performed. The offered exercises include: Liquid flow in pipes, gas flow, pump systems, flow in packed columns, agitation, aeration, filtration, drying in a tunnel, spray drying, fluidization and fluidized bed drying, distillation, absorption, membrane separation, ion exchange, heat exchanging, evaporation, crystallisation, centrifugation, liquid and solid extraction, organic synthesis, fixed bed enzyme reactor, solids handling, combustion/ high temperature processes and process control.

Each practical experiment will last ½ -1 day. Preparation of reports will take appr. 2 days each. In addition every team is expected to make one oral presentation on a given non-technical subject. Reporting and presentations will be supervised by the accompanying graders. In case the university is not sending a grader, this work will be dealt with by DTU. Excursions to chemical production sites are planned.
LEARNING PHILOSOPHY
The experimental work takes place on process equipment as close to industrial reality as possible at a university. It is the goal to put the students into situations similar to what can be expected in real industrial life. The students must update their theoretical plant and process knowledge, plan their work, take the necessary process decisions including safety measures, control and react upon events, search their information, write industrial reports – all-in-all act and think as real process engineers.

COURSE FEE AND REGISTRATION
The student fee amounts 3200 Euro. This covers tuition, excursions and accommodation in single rooms with access to bathroom and kitchen facilities.

The home university must approve the students participation in the course. Registrations take place using an application agreement form, which can be downloaded from our homepage (see below). The ultimate date of registration is March 15th 2014. The registration is not accepted until the payment is received.

For accompanying graders please ask for conditions.

GENERAL INFORMATION
The course will take place at the Department of Chemical and Biochemical Engineering, Technical University of Denmark (DTU) located in Lyngby about 15 km north of central Copenhagen.

Arrival date Friday, July 4th. In this first weekend we will take you on a bus tour and introduce you to some sights and the Danish country side. The experimental work will start on Monday, July 7th and be terminated on Friday, August 1st. During your stay other social events will be arranged. Maximum 70 students can be accepted in 2014.
FURTHER INFORMATION
See the full Summer University announcement at http://www.kt.dtu.dk/Summeruniversity

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