



Graduate School and Networking Activities

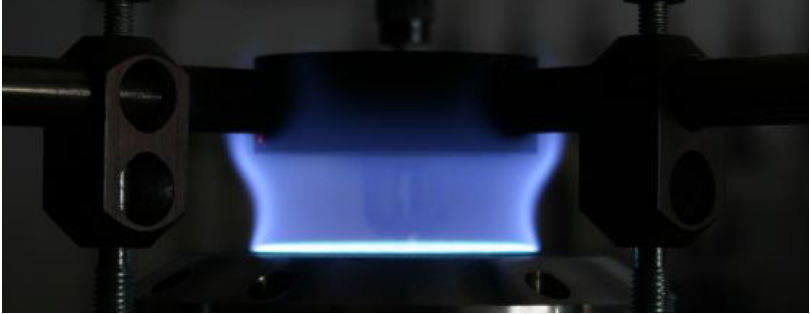
The Graduate School of CECOST,
Centre for Combustion Science and Technology,
announces the Graduate Course:

Combustion Science

January – March 2012, see pages 2-3.



Graduate Course - Spring 2012



Combustion Science

Objective

The objective of the course is to give a solid academic as well as practical introduction to the field of combustion. The course will provide the students with basic knowledge about the processes that are important for different combustion phenomena. From this starting point it will be possible to discuss characteristics of practical combustion phenomena and the role of combustion in modern society in relation to energy production and environmental issues.

Content

The course will treat the following topics: Introduction to combustion, Fuels, Chemical thermodynamics, Chemical equilibrium, Flame temperatures, Chemical kinetics, Combustion Physics, Reactors, Ignition (autoignition, forced ignition), Premixed flames (characteristics, speed, stability), Diffusion flame, Liquid fuel combustion, Solid Fuel Combustion, Environmental effects.

Range

The course corresponds to 7.5 ECTS credits. To fulfil the requirements of the course, the student must participate in the two two-day seminars, pass the compulsory exercises during the course, and the examination at the end of the course.

Schedule

The course starts with a compulsory two-day seminar in Gothenburg on January 18-19, 2012, with introductory lectures and demonstrations. The second two-day seminar will take place in Lund on February 28-29. In between these seminars, lectures and exercises will be published on the course web-page, and students do their course work through individual studies and group exercises. The examination will take place March 8, and will be possible to arrange locally at your home department.

Literature and language

The main course book is Irvin Glassman and R.A. Yetter: Combustion, 4th edition, Academic Press, 2008. Complementary texts are distributed by the course responsables. The course will be given in English.

Additional literature which we recommend you to have as source literature on your department/company is:

- J. Warnatz, U. Maas, R.W. Dibble: Combustion; Physical and Chemical Fundamentals, Modeling and Simulation, Experiments, Pollutant Formation, Springer, 1996.
- Stephen R. Turns, An introduction to combustion; concepts and applications, Mc-Graw-Hill, Inc., 1996.

Prerequisites, Fees and Registration

See page 4.

Deadline for registration: December 20, 2011.

Course responsables:

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General information

The courses are mainly given via internet, using the Luvit distance learning system. The typical 7.5 credit course (ECTS) starts and ends with a compulsory seminar. The course is extended over a period of two months with compulsory group exercises.

When all course requirements are fulfilled, the student is awarded a diploma. For PhD-students, the supervisors determine if the course is appropriate for inclusion in the PhD degree and the home department administrates the registration of the course in the study plan.

Prerequisites

The courses are primarily intended for graduate students and professionals with a background corresponding to a Master of Science in Engineering Physics, Mechanical Engineering, Chemical Engineering or equivalent

Fees

The CECOST courses are free of charge for PhD-students registered at Swedish or foreign universities. For regular 7.5 credit courses the course fee is 14.000 SEK (VAT not incl.) for company employees not belonging to the previous category.

Lunch, coffee and social activities at the seminars are provided free of charge. Travel and accommodation for participation in the seminars is to be arranged by all course participants themselves.

Registration:

Please register on-line at: <http://www.cecost.lth.se/>.

Early registration is encouraged!

Information

Updated information concerning upcoming courses can be found at the CECOST webpage, <http://www.cecost.lth.se/>.

For further information please contact:

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