Organization

The following partners contribute to the organization of the course.

Dr. Cristian Picioreanu
(Delft University of Technology, **main organizers**)
c.picioreanu@tudelft.nl

Prof. Michael Kühl
(University of Copenhagen)
mkuhl@bio.ku.dk

Dr. Thomas R. Neu
(UFZ Magdeburg)
thomas.neu@ufz.de

Prof. Harald Horn
(Karlsruhe Institute of Technology)
horn@kit.edu

Registration

Please send your application including CV and a motivation letter (max. 1/2 page) as a single PDF to:

c.picioreanu@tudelft.nl

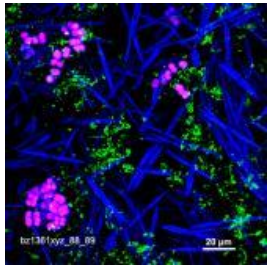
Application deadline:
August 15th, 2015

Confirmation of acceptance:
September 1st, 2015

To provide a high-value course, including hands-on practice and demonstrations, the number of participants is limited to 16.

Course Fee

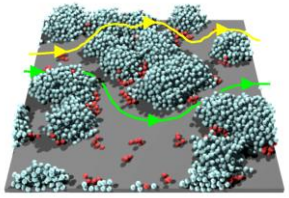
The course fee is 600 € and includes course materials as well as coffee, tea and lunch breaks. The fee includes taxes.

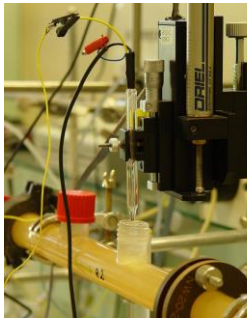


10th Advanced Biofilm Course

October 5 - 10, 2015

Department of Biotechnology
Delft University of Technology
The Netherlands





Scope

In 2005, within the EC project PHOBIA, the idea came up to offer a course with theoretical and practical basics in biofilm research comprising an innovative approach.

The aim of the course is to explore given biofilms with different methods to gain information about their structure and function. The course aims to teach major tools used in biofilm research: biofilm imaging, microsensor techniques and mathematical modelling.

The course is intended for PhD students and post-doctoral researchers in microbiology, environmental technology, bioengineering and related areas, who are going to use this combined approach for characterisation of their own microbial biofilms.

The course is a hands-on course. Attendees should feel free to communicate to the organisers whether their personal samples could be analysed or not.

Please bring your own laptop computer.

Topics

Cultivation of Biofilms

- growth devices and reactors
- processes (e.g. substrate metabolism)
- development (e.g. growth and decay)

Microsensors

- measuring substrate gradients, diffusion and reaction kinetics
- theoretical and practical aspects of micro-environmental analyses

Biofilm imaging

- microscopic imaging with fluorescence microscopy
- theory and application of optical sectioning by means of confocal laser scanning microscopy (CLSM)
- digital image analysis and quantification
- optical coherence tomography (OCT) – TENTATIVE !

Biofilm modelling

- biofilm modelling principles, building blocks and applications
- computer practice with 1-d, 2-d and 3-d models

More details can be found at:
http://www.biofilms.bt.tudelft.nl

Location

Department of Biotechnology
Delft University of Technology
Julianalaan 67, Delft, 2628 BC
THE NETHERLANDS