

## Postgraduate Course

# Microalgae Biorefinery:

### 28 – 31 August 2017

(*Bioprocess Engineering – AlgaePARC, Wageningen, The Netherlands*)



### AIM OF THE COURSE

This course provides the essential skills for designing optimal microalgae-based biorefineries, from unit operations to the entire process chain, for both research and commercial applications and to be able to address the present bottlenecks in the process chain. In addition several speakers from industry will highlight the industrial/economic framework of microalgae biorefinery.

### COURSE DESIGN

Through lectures, digital cases and short practicals, the participants will learn: 1) to describe different process units for each process step in the microalgae biorefinery chain; 2) to evaluate and optimize the process units by setting up mass/energy balances for each unit; 3) to integrate the different process units in a process chain and to 4) integrate the acquired knowledge into optimal process chains for different business cases with different combinations of end products.

### PARTICIPANTS

The course is aimed at PhD students, postgraduate and postdoctoral researchers, as well as professionals, that would like to acquire a thorough understanding of microalgal biorefinery. An MSc level in (bio)process technology, or alike, is recommended.

Please note that this course will focus on the biorefinery of microalgae. In the course "Microalgae Process Design" (Wageningen, 18 – 25 August 2017) the biology and cultivation of microalgae are covered. When taking both courses we can offer a reduction in total course fee.

For more information, please contact Eva Oudshoorn (eva.oudshoorn@wur.nl).

### COURSE LECTURERS & ORGANIZERS

#### Bioprocess Engineering - AlgaePARC, WU

Prof. Michel Eppink, Dr Corjan van den Berg & Dr Giuseppe Olivieri (course leaders), Drs Hans Reith

#### Food and Biobased Research, Wageningen UR

Dr Ben van den Broek, Dr Carl Safi, Dr Dorinde Kleinegris

#### Fitoplancton, Cadiz, Spain

Dr Carlos Unamunzaga

#### Value for Technology, Belgium

Dr Philippe Willems

#### AlgaeBiotech S.L., The Netherlands

Dr Reza Ranjbar

#### The Graduate School VLAG, WU

Eva Oudshoorn, MSc

### COURSE FEES

VLAG / WU PhD candidates	€ 250,-
All other PhD candidates	€ 500,-
Postdocs, and other academic staff	€ 700,-
Participants from the private sector	€1600,-

Course fee includes materials, lunches/tea/coffee and one dinner.

### REGISTRATION AND INFORMATION

<http://www.vlaggraduateschool.nl/en/courses/course/MBR17.htm>

For information contact:  
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