



# PROGRAMME

## Saturday 20<sup>th</sup> September: Day 1

- 12:00 Arrival/Registration  
16:45 - 17:00 Welcoming Addresses  
M. Berovic, I. Radojčić Redovniković and H.J. Noorman

### Course Introduction: Some Basic Concepts

- 17:00 - 17:45 Lecture 1: Basic Microbiological Concepts V. Zechner-Krpan  
17:45 - 18:30 Lecture 2: Basic Engineering Balances J. Büchs  
18:30 - 19:15 Lecture 3: Introduction to Modern Industrial Bioprocesses M. Jenzsch

### 19:45 Dinner and Welcome Party

## Sunday 21<sup>st</sup> September: Day 2

### Stoichiometry, Rates and Reaction Kinetics

- 09:00 - 09:45 Lecture 4: Stoichiometry H.J. Noorman  
09:45 - 10:30 Lecture 5: Kinetics H.J. Noorman

### 10:30 - 11:00 Coffee break

### Physical Parameters of Bioprocessing and Bioreactors

- 11:00 - 11:45 Lecture 6: Sterilization in Bioprocesses M. Berovič  
11:45 - 12:30 Lecture 7: Mixing, Mass and Heat Transfer in Bioreactors S.M. Stocks  
12:30 - 13:15 Lecture 8: Process Intensification G. Jovanović

### 13:30 - 14:30 Lunch

- 14:30 - 15:15 Lecture 9: Bioprocess Engineering in Microtiter Plates and Shake Flasks/J. Büchs  
15:15 - 16:00 Lecture 10: Bioprocessing in Conventional Bioreactors S.M. Stocks

### Bioreactors and Bioprocessing I

- 16:00 - 18:45 Design Study 1 - Stoichiometry / Kinetics H.J. Noorman / S.M. Stocks  
J.Büchs / C. Haringa

### 19:00 – 20:00 Dinner

- 20:30 **Get Together Party with Tasting of Participants 'National Delights'**  
M. Jenzsch, I. Radojčić Redovniković



## Monday 22<sup>nd</sup> September: Day 3

### Bioreactors and Bioprocessing II

09:00 - 09:45 Lecture 11: Industrial Bioreactors and Detailed Modelling C. Haringa

09:45 - 10:30 Lecture 12: Scale-Up and Scale-Down S.M. Stocks

### 10:30 - 11:00 Coffee break

11:00 - 11:45 Lecture 13:  
Microscale-Based Design of Modular Industrial-Scale Reactors G. Jovanović

11:45 - 12:30 Lecture 14: Solid State Bioprocessing M. Berović

### 12:30 - 13:45 Lunch

### Bioreactors and Bioprocessing III

13:45 - 14:30 Lecture 15

14:30 - 15:15 Lecture 16: Fed Batch and Continuous Culture J. Büchs

### 15:15 - 16:00 Coffee break

16:00 - 18:00 Design Study 2: Transport phenomena J. Büchs / H. J. Noorman  
S.M. Stocks / C. Haringa

### 19:00 - 20:00 Dinner

20:30 Chris Hewitt Speakers Corner B. Kristiansen, I. Radojičić Redovniković

## Tuesday 23<sup>rd</sup> September: Day 4

### Dynamic Diagnostic Analysis and Modelling

09:00 - 09:45 Lecture 17: Tools for in-vivo Diagnosis of Pathway Reactions M. Reuss

09:45 - 10:30 Lecture 18: Dynamic Modeling of Metabolism M. Reuss

### Use of Enzymes

11:00 - 11:45 Lecture 19: Biocatalytic Process Engineering J.M. Woodley  
E. Overgaard Willer

### 12:00 Social Boat Trip to Bol



## Wednesday 24<sup>th</sup> September: Day 5

### Modern Measurement Techniques and Optimisation

09:00 - 09:45 Lecture 20: Bioprocess and Fermentation Monitoring M. Jenzsch

09:45 - 10:30 Lecture 21: Soft-sensors for Bioprocess Monitoring C. Haringa

### 10:30 - 11:00 Coffee break

### Special Cases 1 and 2

11:00 - 11:45 Lecture 22: Recombinant Protein Production with Different Hosts M. Jenzsch

11:45 - 12:30 Lecture 23: Bioprocess Engineering for Stem Cell Culture Q. Rafiq

### 12:30 - 14:00 Lunch

### Downstream Processing

14:00 - 14:45 Lecture 24: Downstream Processing 1 L. van der Wielen

14:45 - 15:30 Lecture 25: Downstream Processing 2 L. van der Wielen

### 15:30 - 16:00 Coffee break

16:00 - 16:45 Lecture 26: Downstream Processing 3 L. van der Wielen

16:45 - 18:45 Exercise 3: Case study - Downstream Processing L. van der Wielen

### 19:00 - 20:15 Dinner

20:30 **Wine Culture and Art of Wine Tasting in Europe and  
EUBEC 2025 Wine Competition** M. Berovič

## Thursday 25<sup>th</sup> September: Day 6

### Special Cases 3 and 4

09:00 - 09:45 Lecture 27: Culture of Human Mesenchymal Stem Cells on Microcarriers Q. Rafiq

09:45 - 10:30 Lecture 28: Barriers in Industrial Production of Metabolites B. Kristiansen

### 10:30 - 11:00 Coffee break

### Control of Bioprocesses

11:00 - 11:45 Lecture 29: Introduction to Control of Bioprocesses J. Huusom

11:45 - 12:30 Lecture 30: Advances in Control of Bioprocesses J. Huusom

### 12:30 - 14:00 Lunch

14:00 - 18:30 Free time

### 18:30 - 20:00 Dinner

20:15 **Farewell Party and Presentation of Certificates and Case Study Prize**

## Friday 26<sup>th</sup> September: Day 6

**Departure**