



## SUMMER SCHOOL

PROGRAM CODE  
SS017-05

PROGRAM DURATION  
5 Days

DATES  
4-8 September 2017

CREDITS  
3 ECTS

TUITION  
300 € for academic  
participants, 600 € for  
industrial participants.  
Rates include partici-  
pation to lectures,  
study material, coffee  
break and field trip.  
Rates do not include  
traveling and accom-  
modation expenses

University of Milano-Bicocca — Department of Biotechnology and Biosciences  
Chalmers University of Technology — Göteborg (Sweden)

# TOWARDS A BIO-BASED ECONOMY: SCIENCE, INNOVATION, ECONOMICS, EDUCATION

## DESCRIPTION OF THE COURSE

Bio-based economy (Bioeconomy) aims at reducing the dependence from fossil fuels and finite materials without overexploiting natural resources. According to the definition of the European Commission "Bioeconomy encompasses those parts of economy that use renewable biological resources from land and sea to produce food, biomaterials, bioenergy and bioproducts". Behind bioeconomy there is much science related to industrial biotechnology and a deep change in Economics and Politics, as well as societal issues.

A new cross-sector expertise is therefore required. This summer school aims at providing a broad overview of the mentioned issues and will be held by national and international speakers, both from academia and from industry. At least one visit to a company involved in the production of bio-based compounds will be included in the school's schedule. Because of its inter-disciplinarity, the program welcomes participants with different backgrounds. Participants should be aware that a basic knowledge about the scientific basis of biotechnology is required and can ask organizers for advice.

Networking and discussion among students and lecturers will be encouraged and fostered throughout the duration of the school, with social event and a poster session.

in cooperation with



**CHALMERS**

## Contents

What's new: Introduction in the scope, challenges and trends of bioeconomy.  
Local vs global: Choice and processing of renewable raw materials; environmental sustainability of biomass sourcing and processing.  
How to do it: Key technologies for the production of bio-based products.  
Biorefineries: concepts and application.  
National and international strategies for bioeconomy: funding, organization, network.  
Innovation in place: visit to a company and case studies of success (or failure) stories.  
Economical models and economic sustainability of bio-based business.  
Societal requirements for bio-based products and societal awareness about bioeconomy; social sustainability of the bio-based model.  
Changes in training programs: Models and experiences.

## Application deadline

May 31st, 2017

**Requested documents to be uploaded in the application form:** CV and Passport/ID card/ Motivation Letter

**Language:** English

**Target Audience:** Priority will be given to students participants holding a Master degree, but application by master students is encouraged and will be evaluated on the basis of the applicant motivation and background.

**Scientific Committee:** Prof. Marina Lotti - Prof. Paola Branduardi - Prof. Danilo Porro - Prof. Maurizio Bettiga (Chalmers University of Technology)

**For further information, Contact:** [bioeconomy@unimib.it](mailto:bioeconomy@unimib.it)

**Location:** Milan (University of Milano-Bicocca)

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## Admission criteria

Each Summer School Program has different Admission Criteria, although General Criteria for all Summer Programs are as follows:

- Applicants should be 18 years old
- Applicants should have completed at least one year of college or enrolled in the first-year

## English language proficiency

English proficiency is required for all summer school programs offered by University of Milano-Bicocca. Though we don't ask for a formal English certification, but what we expect is:

- Your oral comprehension and expression must be sufficient for effective class participation.
- Your reading comprehension and writing skills must be sufficient for responding clearly and accurately for course assignments
- Your comprehension and communication skills must be sufficient for individual/group interaction

## Accommodation at University of Milano-Bicocca

In order for you to fully experience Bicocca campus life, we have carefully selected the residence close to the main campus building that encourage you to not only integrate with your peers, but also with the local community.

The University of Milano - Bicocca makes available at their residences ( Building U12 , via Vizzola 5 in Milan and Building U22 , via Mantova in Sesto San Giovanni ) some rooms destined to guest service. To book an accommodation and know costs and terms of your stay you can write to: [booking.bicocca.fms.it@sodexo.com](mailto:booking.bicocca.fms.it@sodexo.com)