



demac

universidade de aveiro  
departamento de engenharia  
de materiais e cerâmica

# SUSTAINABLE PLASTICS - FROM FEEDSTOCKS TO PRODUCT DESIGN 2023

ERASMUS+ Blended  
Intensive Programme (BIP)



polymeric and composite  
materials science and  
technology that enable job  
ready skills



reuse of industrial wastes  
for a circular design



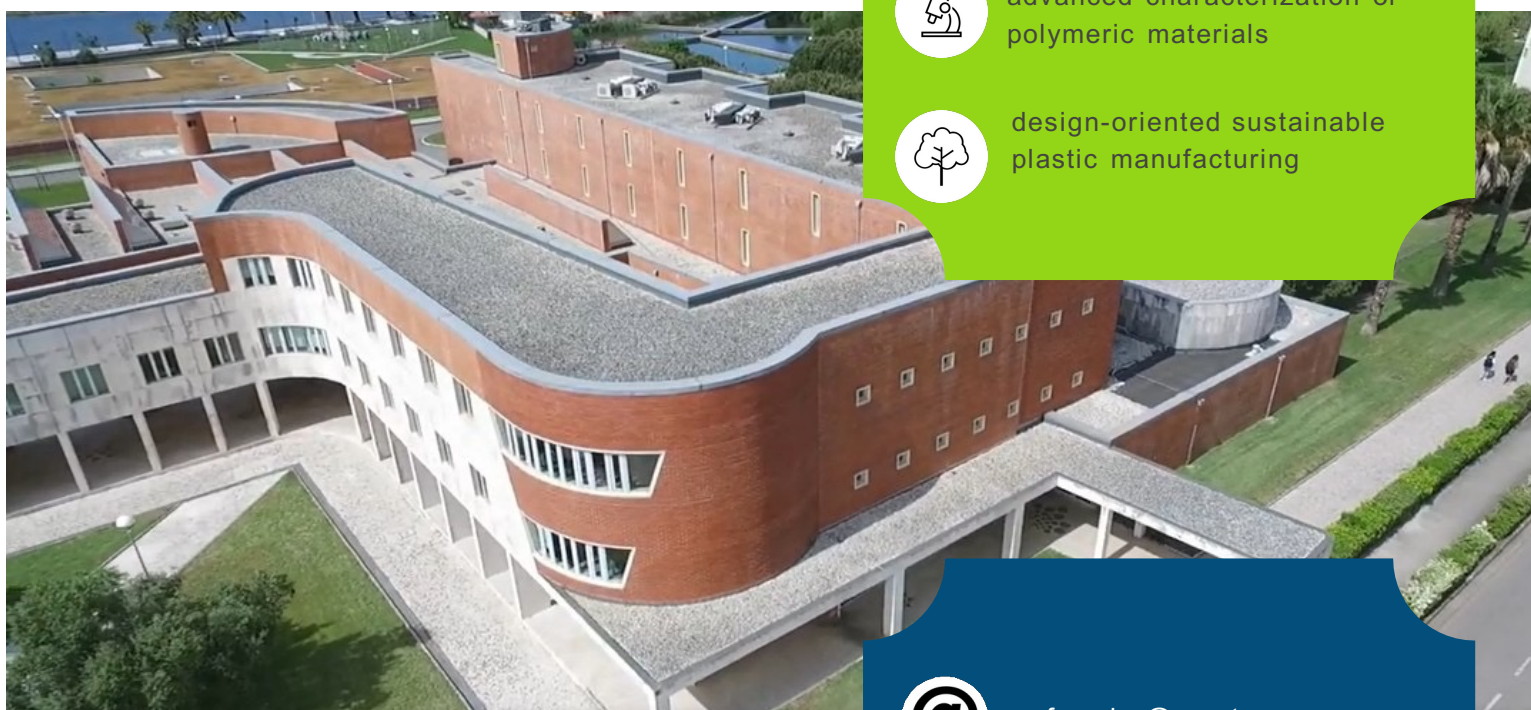
traditional and emerging  
processing plastic  
technologies



advanced characterization of  
polymeric materials



design-oriented sustainable  
plastic manufacturing



## OUR APPROACH

15 online lectures

5 days hand on experience in beautiful Aveiro city in  
Portugal

Project-based learning method with industrial  
mentors

Working towards sustainable plastic solutions

## AVAILABLE SPOTS

20 spots available (+5 local places)

International and multicultural learning

environment Multidisciplinary and creative approach



[pcferreira@ua.pt](mailto:pcferreira@ua.pt)



Virtual lectures - June - July  
In Aveiro - 20th - 26th July

Report and virtual presentation  
4th, 11th and 13th September



Application deadline -  
5th May, 2023

5 days in Aveiro, Portugal

# SUSTAINABLE PLASTICS - FROM FEEDSTOCKS TO PRODUCT DESIGN

- 41 hours virtual component
- 40 hours short-term physical mobility Award 3 ECTS
- 15 online lectures (2 hours each) to deliver skills for better project-based learning in mobility
- access to all equipment/software used for sustainable plastics' products design, compounding, characterization and manufacturing
- visit plastic industries, and contact with the latest trending and emerging technologies towards sustainability

## PROGRAM DETAILS

- Polymers, blends and composites
- Recycling and Circular Economy
- Biodegradable polymers: types, properties and actual market
- Biopolymers/bioplastics structural and morphologic characterization
- Biopolymers/bioplastics physical-chemical characterization
- Mechanical and thermal characterization
- Desing for sustainability
- Compounding technologies
- Processing technologies
- Additive manufacturing (stereolithography, Fused Filament Fabrication, etc)
- Sustainable Lyfe Cycle Assessment

June

- 
- CAD design I
  - CAD design II
  - CAD design III
  - Brainstorm I
  - Brainstorm II
  - Brainstorm III
  - 5 days project

July

September

- Preparation of deliverables
- Preparation of deliverables
- Final presentation



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Campus Universitário de Santiago 3810-  
193 Aveiro  
Portugal

# APPLICATION FORM - 2023

Sustainable Plastics - from feedstocks to product design

Please send application to Paula Ferreira [pcferreira@ua.pt](mailto:pcferreira@ua.pt)  
Deadline – 5th May 2023

Name

Surname

Position

Country

Email address

Year of studies

Motivation

Institution and Department

Address

