Erasmus+

FACULTY OF MECHANICAL ENGINEERING TUL

JOIN AN INTERNATIONAL, MULTIDISCIPLINARY AND INTENSIVE COURSE IN THE FIELD OF NANOMATERIALS FOR MEDICAL AND TECHNICAL APPLICATIONS

MOBILITY PROJECT FOR HIGHER EDUCATION STUDENTS AND STAFF:

ERASMUS+ BLENDED INTENSIVE PROGRAMMES (BIP)

Technical University of Liberec, the Czech Republic
Faculty of Mechanical Engineering | Faculty of Science, Humanities and Education

ORGANISING INSTITUTION

TECHNICAL UNIVERSITY OF LIBEREC

Technical University of Liberec, Czech Republic
Contact person and project coordinator: Jan Valtera (jan.valtera@tul.cz)
Erasmus+ coordinator: Marcela Válková (marcela.valkova@tul.cz)

COLLABORATING INSTITUTIONS

RWTH AACHEN UNIVERSITY

RWTH Aachen
Institute of Textile Technology, Germany, Contact person: Caroline Emonts

MŰEGYETEM 1782

Budapest University of Technology and Economics
Faculty of Mechanical Engineering, Hungary, Contact person: Lászió Mészáros

UBB Uniwersytet Bielsko-Biały

University of Bielsko-Biala
Faculty of Mechanical Engineering and Computer Science, Poland, Contact person: Izzabela Rajzer

GUEST INSTITUTIONS

UNIVERSITY OF WATERLOO

University of Waterloo
Waterloo Institute for Nanotechnology, Canada, Contact person: Michael Tam

Aston University BIRMINGHAM UK

Aston University
School of Infrastructure and Sustainable Engineering, College of Engineering and Physical Science, Great Britain, Contact person: Eirini Theodosiou

COURSE CONTENT

- SUMMER SCHOOL (ON SITE)
- VIRTUAL COURSE (ONLINE)
- NUMBER OF CREDITS – 5 ECTS

NANOFIBERS | MEDICAL & TECHNICAL APPLICATIONS

AC & DC ELECTROSPINNING | DESIGN & SIMULATION

MORPHOLOGY AND BIOCOMPATIBILITY ANALYSIS

HIERARCHICAL NANOFIBROUS STRUCTURES

IMPORTANT TERMS AND DEADLINES

- Deadline for Applications:
  5 March 2026
- Virtual Events:
  April – June 2026
- Physical Event – Summer school in Liberec, Czech Republic
  22-26 June 2026
- Financial Support under Erasmus+ Programme
  contact your Erasmus+ coordinator

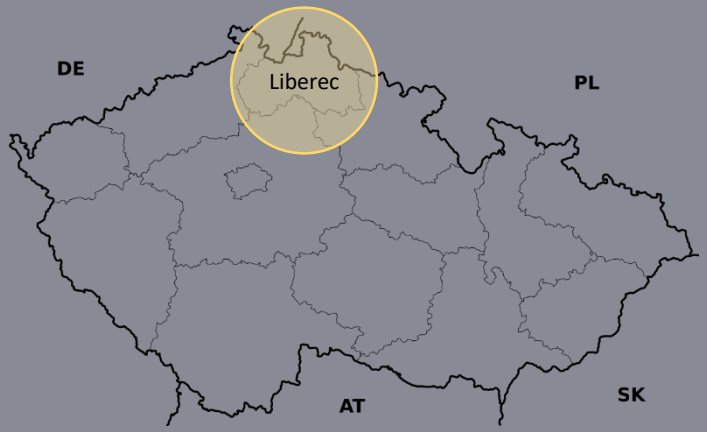
MAIN INSTRUCTORS

David Lukáš	Introduction to the Realm of Nanofibers
Jan Valtera	Technologies for Production of Nanofibers
	Design of Electrospinning Devices & Spinning Electrodes
	Simulation of the electrical field of a spinning electrode
Mészáros László	Nanoparticles: significance, characteristics and applications
Caroline Emonts	Medical Textiles
Eva Kuželová Košťáková	Testing Analysis & Application of Nanofibers in Medicine
Josh Manasco	Nanofiber materials for advanced filtration

Gain new skills and knowledge from the field of nanofibres and their applications, as well as large-scale production using unique needleless electrospinning technologies.

Design your own electrode for the production of polymeric nanofibers using the AC electrospinning technology and analyse the nanofiber material produced.

All of that by learning and working in international teams of students and academics.



https://www.kts.tul.cz/en/bip

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DETAILED INFORMATION

INDUSTRIAL PARTNERS

elmarco

NANOPROGRESS
THE NANOTECHNOLOGY CLUSTER

NANOMEDICAL