



Blended Intensive Programme

Industrial engineering- operational management

University of Bielsko-Biala, Poland
Faculty of Mechanical Engineering and Computer Science
International Relations Office

Virtual part: First part of November 2024
Physical mobility: 2nd – 6th of December 2024

ABOUT US

The University of Bielsko-Biala was founded in October 2001 as an independent governmental academic institution. At present, about 5,000 students study at five faculties: Faculty of Mechanical Engineering and Computer Science; Faculty of Materials, Civil and Environmental Engineering; Faculty of Management and Transport; Faculty of Humanities and Social Sciences, and Faculty of Health Sciences. The University employs about 400 people, including 200 experienced professors and other academic staff. As the only state educational institution in the Podbeskidzie region which provides tertiary education, the University of Bielsko-Biala has a vibrant community of ambitious individuals who contribute to the University's research and didactic potential by constantly attaining their professional, educational and social goals. The University is firmly rooted in the region which is reflected in various enterprises with members of the community and also in its research interests.



The "Blended Intensive Program on Industrial engineering- operational management " offers an overview of knowledge and acquisition of skills related to the forms and methods of operational management and the specifics of the effective functioning of each production system that is influenced by the method of managing manufacturing operations. We plan to achieve these goals through a combination of remote lectures and stationary practical workshops. The program covers a variety of topics to provide participants with a comprehensive understanding of topics such as:

- **factors affecting productivity;**
- **organizational performance measurement system;**
- **productivity and performance analysis;**
- **productivity improvement strategy.**

Area of lectures and workshops:

- ✓ Raising and upskilling inter-personal competences
- ✓ Maintaining business relations in international team and society
- ✓ Productivity cycle. Factors affecting productivity, barriers to productivity growth
- ✓ Organizational performance measurement system, productivity and performance analysis
- ✓ Productivity improvement strategy, techniques and methods for productivity improvement
- ✓ New trends in operational management, simultaneous engineering, reverse engineering, virtual prototyping, virtual design, simulation and emulation

We invite students from all European universities from the areas of: mechanical engineering, mechatronics, computer sciences and robotics.



We also invite to collaborate teachers/researchers/specialists who are open to sharing their knowledge with students in an active and engaging way. BIP has the way of practical side with workshops, study visits, round tables and offers student a possibility to gain additional 3 ECTS points to their curriculum.

The program's blended approach, combining theoretical understanding through remote lectures and practical application in stationary sessions, ensures participants gain a comprehensive skill set in mechanical engineering.

The maximum number of participants in this BIP is limited to 25.



Forms of activity

- ✓ Online lectures before arrival - 0.5 ECTS (12 hours)
- ✓ Physical part at our University 1.5 ECTS (lectures, workshops and study visits)
- ✓ Students' own work - 1 ECTS (25 hours)

Number of credits for BIP – 3 ECTS

Practical information for physical component

- ✓ Venue: Campus of the University of Bielsko-Biala, 2 Willowa Str.
- ✓ Dates: 2nd – 6th of December 2024

PRELIMINARY PROGRAM

Virtual part (MS Teams Platform) – first part of November

Topics:

1. Productivity cycle. Factors affecting productivity, barriers to productivity growth - theoretical basics (3 h)
2. Organizational performance measurement system, productivity and performance analysis - theoretical basics (3 h)
3. Productivity improvement strategy, techniques and methods for productivity improvement - theoretical basics (3 h)
4. New trends in operational management, simultaneous engineering, reverse engineering, virtual prototyping, virtual design, simulation and emulation - theoretical basics (3 h)



Physical mobility (Campus of the University of Bielsko-Biala)

Monday, 2th December

8:00 – 8:30	Morning coffee
8:30 – 8:35	<i>Official opening of the Blended Intensive Programme</i>
8:35 – 9:00	<i>Presentation of the University of Bielsko-Biala and the city</i>
9:00 – 10:30	<i>I can adapt to the new international environment /campus tour with exercises, quiz about the UBB with prizes for winners/</i>
10:30 – 12:00	<i>I can present myself - I am open to getting to know others /active exercise to engage participants, presentation of UBB/</i>
12:30 – 13:30	Lunch organized by the UBB
13:30 – 15:00	<i>Introduction to the topic of BIP</i>
15:00 – 17:00	Sightseeing – city center

Tuesday, 3th December

08:30 – 9:00	Morning coffee
09:00 – 10:30	<i>Productivity cycle - practical workshops</i>
10:30 – 12:00	<i>Factors affecting productivity - practical workshops</i>
12:00 – 13:00	Lunch break
13:00 – 14:30	<i>Barriers to productivity growth - practical workshops</i>
14:30 – 16:00	<i>Organizational performance measurement system - practical workshops</i>



Wednesday, 4th December

08:30 – 9:00 Morning coffee

09:00 – 10:30 *Productivity and performance analysis - practical workshops*

10:30 – 12:00 *Productivity improvement strategy - practical workshops*

12:00 – 13:00 Lunch break

13:00 – 14:30 *Techniques and methods for productivity improvement - practical workshops*

Thursday, 5th December

10:00 – 12:00 *The Museum of Engineering and Technology in Kraków*

12:00 – 13:00 Lunch break

13:00 – 15:00 Kraków – the city economic possibilities – lectures with sightseeing

15:00 Departure

Friday, 6th December

08:30 – 09:00 Morning coffee

09:00 – 12:00 Round table – project presentations

12:00 – 13:00 Closing ceremony