



ROMANIA
'VASILE ALECSANDRI' UNIVERSITY OF BACAU
Faculty of Engineering
Calea Mărășești, Nr. 157, Bacău, 600115, Tel./Fax +40 234 580170
<http://ub.ro/inginerie>; e-mail: decaning@ub.ro



Field: **Industrial engineering**
Study programme: **Machine building technology**

2022-2023 academic year

CURRICULUM
1st year of study

No	Subject	Number of ECTS credits	Examination form	Semester
1.	Mathematical analysis	4	WO	1
2.	Linear algebra, analytic and differential geometry	4	WO	1
3.	Descriptive geometry	4	O	1
4.	Chemistry	4	W	1
5.	Computer programming and programming languages 1	5	W	1
6.	Communication	2	O	1
7.	Materials science and engineering	4	W	1
8.	Physical education and sports 1	1	P/F	1
9.	English for engineering 1/French for engineering 1	2	O	1
10.	Special mathematics	4	WO	2
11.	Physics	4	WO	2
12.	Technical drawing and infographics 1	5	O	2
13.	Computer programming and programming languages 2	4	O	2
14.	Mechanics	4	W	2
15.	Materials technology	4	W	2
16.	Physical education and sports 2	1	P/F	2
17.	English for engineering 2/French for engineering 2	2	O	2
18.	General economics	2	O	2

W- written exam

O - oral exam

WO- written and oral exam

P/F- pass/fail

Dean,
Assoc. Prof. Ph.D. Eng. Mirela Panainte-Lehăduș

Head of Department
Lecturer Ph.D.Eng. Eugen Hergheliegiu



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CURRICULUM
2nd year of study

No	Subject	Number of ECTS credits	Examination form	Semester
1.	Strength of materials 1	5	WO	1
2.	Mechanisms 1	5	W	1
3.	Tolerance and dimensional control	6	WO	1
4.	Thermotechnics	4	O	1
5.	Electrotechnics and electronics	4	W	1
6.	English for engineering 3/French for engineering 3	2	O	1
7.	Physical education and sports 3	1	P/F	1
8.	Ecology and Environmental protection	3	O	1
9.	Strength of materials 2	3	WO	2
10.	Mechanisms 2	3	W	2
11.	Mechanical vibration	3	WO	2
12.	Fluid mechanics	3	W	2
13.	Hydraulic machines	3	O	2
14.	Thermal machines	3	W	2
15.	English for engineering 4/French for engineering 4	2	O	2
16.	Machine elements 1	3	W	2
17.	Technical drawing and infographics 2	3	O	2
18.	Annual training	4	O	2

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CURRICULUM 3rd year of study

No	Subject	Number of ECTS credits	Examination form	Semester
1.	Machine elements 2	5	W	1
2.	Quality management	4	WO	1
3.	Data acquisition and distribution systems	4	W	1
4.	Computer-assisted design - CAD systems	6	O	1
5.	Logistics	4	O	1
6.	Fundamentals of metal cutting and surface generation	5	WO	1
7.	Cutting tools - project	2	O	1
8.	Machine tools	6	WO	2
9.	Computer-aided quality (CAQ)	5	W	2
10.	Technological devices	5	W	2
11.	Manufacturing systems engineering	5	WO	2
12.	Finite element method	5	O	2
13.	Annual training	4	O	2

W- written exam

O - oral exam

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2022-2023 academic year

CURRICULUM
4th year of study

No	Subject	Number of ECTS credits	Examination form	Semester
1.	Machine building technology	7	WO	1
2.	Manufacturing technology using CNC machine tools	5	W	1
3.	Aesthetics and Industrial design	4	W	1
4.	Plastic and composite materials parts manufacturing	4	W	1
5.	Risk management	4	O	1
6.	The basics of technical creativity	2	O	1
7.	Reliability	2	O	1
8.	Design and optimization of technologies and production systems	2	O	1
9.	Cold working processes	4	W	2
10.	Assembling, fitting and packaging technologies	3	W	2
11.	Ergonomics	3	W	2
12.	Competitive engineering	2	W	2
13.	Project management	3	O	2
14.	Preparing and writing the Bachelor final project	4	O	2
15.	Entrepreneurship	2	O	2
16.	Technological process automation	2	WO	2
17.	Training for preparing and writing the Bachelor final project	7	O	2

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Study programme: Industrial design

2022-2023 academic year

CURRICULUM
3 rd year of study

No	Subject	Number of ECTS credits	Examination form	Semester
1.	Machine elements 2	5	W	1
2.	Quality management	4	W	1
3.	Virtual instrumentation	4	W	1
4.	Assisted modeling of shape in design	5	O	1
5.	Optimization of the suppliers	4	O	1
6.	Fundamentals of metal cutting and surface generation	4	WO	1
7.	Product design	4	W	1
8.	Machine tools	6	WO	2
9.	Quality product design	5	W	2
10.	Technological devices	5	W	2
11.	Manufacturing systems engineering	5	WO	2
12.	Finite element method	5	O	2
13.	Annual training	4	O	2

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