

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



Field of Study: Mechatronics and Robotics
Study Programme: Mechatronics

2018 – 2019 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	Chemistry	5	W	1
4	Computer programming and programming languages 1	7	O	1
5	Communication ethics	2	O	1
6	Materials science and engineering	5	W	1
7	Physical education and sports 1	1	P/F	1
8	English for engineering 1/French for engineering 1	2	O	1
9	Special mathematics	4	WO	2
10	Physics	4	WO	2
11	Computer graphics 1	5	O	2
12	Computer programming and programming languages 2	6	O	2
13	Mechanics	3	W	2
14	Materials technology	4	W	2
15	Physical education and sports 2	1	P/F	2
16	English for engineering 2/French for engineering 2	2	O	2
17	General economics	1	O	2

W- written exam

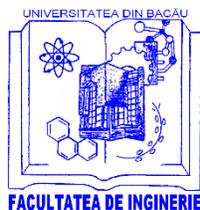
O – oral exam

WO- written and oral exam

P/F- pass/fail

Dean,
 Prof.Ph.D.Eng. Valentin Zichil

Head of Department,
 Senior lecturer Ph.D.Eng. Catalin Drob



ROMANIA
MINISTRY OF NATIONAL EDUCATION
‘VASILE ALECSANDRI’ UNIVERSITY OF BACAU
Faculty of Engineering
Calea Mărășești, Nr. 157, Bacău, 600115, Tel./Fax +40
234 580170



<http://inginerie.ub.ro>; e-mail: decaning@ub.ro

Field of Study: Mechatronics and Robotics
Study Programme: Mechatronics

2018 – 2019 academic year

CURRICULUM
2nd year of study

No	Subject	Number of ECTS credits	Examination form	Semester
1	Computer graphics 2	3	O	1
2	Strength of materials	4	WO	1
3	Mechanisms	4	W	1
4	Tolerance and dimensional control	5	WO	1
5	Thermotechnics	3	O	1
6	Electrotechnics and electronics	3	W	1
7	English for engineering 3/French for engineering 3	2	O	1
8	Physical education and sports 3	1	P/F	1
9	Digital electronics	5	O	1
10	Mechanical vibration	4	W	2
11	Machine elements	4	W	2
12	Fluid mechanics	4	W	2
13	Measurement of electrical and non-electrical quantities	3	W	2
14	Power electronics	3	O	2
15	Human resource management	3	O	2
16	Systems theory and automated adjustment	3	W	2
17	English for engineering 4/French for engineering 4	2	O	2
18	Training, 3 weeks x 30 hours	4	O	2

W- written exam

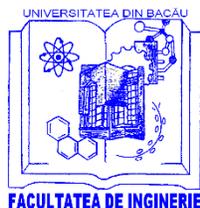
O – oral exam

WO- written and oral exam

P/F- pass/fail

Dean,
 Prof.Ph.D.Eng. Valentin Zichil

Head of Department,
 Senior lecturer Ph.D.Eng. Catalin Drob



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



Field of Study: Mechatronics and Robotics
Study Programme: Mechatronics

2018 – 2019 academic year

CURRICULUM 3rd year of study

No	Subject	Number of ECTS credits	Examination form	Semester
1	Mechanical structures for mechatronics	4	W	1
2	Industrial environment engineering and protection	4	O	1
3	Microprocessors	4	WO	1
4	Acquisition systems, virtual interference and instrumentation	4	W	1
5	Risks and industrial safety	3	O	1
6	Sensors and sensory systems	4	W	1
7	Computer-assisted design	4	O	1
8	Artificial intelligence	3	O	1
9	Machine tools and metalworking	4	W	2
10	Control systems in robotics	4	W	2
11	Manufacturing systems engineering	3	W	2
12	Electrical equipment	3	W	2
13	Digital computer architecture	3	WO	2
14	Electrical machines	4	O	2
15	Hydraulic and pneumatic automation	5	O	2
16	Training, 3 weeks x 30 hours	4	O	2

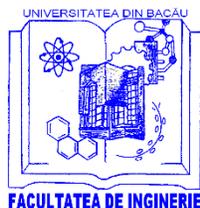
W- written exam

O – oral exam

WO- written and oral exam

Dean,
 Prof.Ph.D.Eng. Valentin Zichil

Head of Department,
 Senior lecturer Ph.D.Eng. Catalin Drob



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



Field of Study: Mechatronics and Robotics
Study Programme: Mechatronics

2018 – 2019 academic year

CURRICULUM
4th year of study

No	Subject	Number of ECTS credits	Examination form	Semester
1	Robot components	5	W	1
2	Manufacturing technologies and micro--nanotechnologies	5	W	1
3	Optimization techniques	4	W	1
4	Technical creativity	2	O	1
5	Industrial informatics	4	W	1
6	Hydronics and pneutronics	3	W	1
7	Design and optimization in mechatronics	2	O	1
8	Reliability and maintenance	2	O	1
9	Quality engineering	3	O	1
10	Finite element analysis	3	O	2
11	Industrial process automation	3	W	2
12	Mechatronic systems design	3	W	2
13	Project management	3	O	2
14	Industrial logistics	3	O	2
15	Analysis and synthesis of digital devices	3	W	2
16	Preparing and writing the Bachelor final project	4	O	2
17	Ergonomics	4	W	2
18	Training for preparing and writing the Bachelor final project (2 weeks x 30 hours)	4	O	2

W- written exam
 O – oral exam

Dean,
 Prof.Ph.D.Eng. Valentin Zichil

Head of Department,
 Senior lecturer Ph.D.Eng. Catalin Drob