

ROMANIA  
'VASILE ALECSANDRI' UNIVERSITY  
OF BACAU  
Faculty of Engineering



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**Field: Mechatronics and Robotics**

**Study programme: Advanced mechatronics**

**2023 – 2024 academic year**

**CURRICULUM**  
**1st year of study**

| No | Subject   | Number of ECTS credits | Examination form | Semester |
|----|---|------------------------|------------------|----------|
| 1  | Modeling and simulation of industrial processes | 6                      | W                | 1        |
| 2  | Processing of experimental data                 | 6                      | W                | 1        |
| 3  | Research and development management             | 8                      | W                | 1        |
| 4  | Resources valorisation                          | 6                      | W                | 1        |
| 5  | Ethics and academic integrity                   | 2                      | O                | 1        |
| 6  | Advanced methods of microcontroller programming | 6                      | W                | 2        |
| 7  | Advanced mechatronic systems                    | 6                      | W                | 2        |
| 8  | Virtual instrumentation for control systems     | 5                      | W                | 2        |
| 9  | Advanced mechatronics digital control systems   | 5                      | W                | 2        |
| 10 | Applicative research project 1                  | 4                      | P                | 2        |
| 11 | Research training (90 hours)                    | 4                      | P                | 2        |

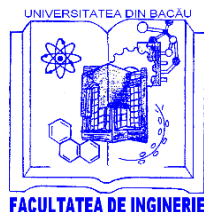
W- written exam

O – oral exam

P- partial exam

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

Head of Department,  
Assoc. Prof. Ph.D. Eng. Catalin Drob



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**Field: Mechatronics and Robotics**

**Study programme: Advanced mechatronics**

**2023 – 2024 academic year**

**CURRICULUM**  
**2nd year of study**

| No | Subject  | Number of ECTS credits | Examination form | Semester |
|----|--|------------------------|------------------|----------|
| 1  | Optimization of mechanical structures and mechatronic systems  | 7                      | W                | 1        |
| 2  | Advanced techniques for controlling electrical power systems   | 7                      | W                | 1        |
| 3  | Modern methods of analysis for hydraulic and pneumatic systems | 6                      | W                | 1        |
| 4  | Use and management of unmanned aerial vehicles (drones)        | 6                      | O                | 1        |
| 5  | Immersive technologies   | 2                      | O                | 1        |
| 6  | Applicative research project 2                                 | 4                      | P                | 1        |
| 7  | Research and design  | 10                     | P                | 2        |
| 8  | Training for Master's degree final project preparation         | 10                     | P/F              | 2        |
| 9  | Master's degree final project preparation                      | 10                     | P                | 2        |

W- written exam

P- partial exam

P/F – pass/fail

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