

COURSE GUIDE – short form

Academic year 2014 - 2015

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|--------------------------|---|-----------------------|----|---------------|----|-------------|---------------------|-------------------------|---|
| Course name ¹ | Software for Mechatronic Systems | | | | | Course code | RBT.414. DO.DS-1 | | |
| Course type ² | DS | Category ³ | DO | Year of study | IV | Semester | 8 | Number of credit points | 5 |

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|----------------|---------------------------|--|----|---|----|---|----|--|
| Faculty | Mechanics | Number of teaching and learning hours ⁴ | | | | | | |
| Field | Mechatronics and Robotics | Total | L | T | LB | P | IS | |
| Specialization | Robotics and Mechatronics | 56 | 28 | - | 28 | - | 70 | |

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| Pre-requisites from the curriculum ⁵ | Compulsory | |
| | Recommended | |

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| General objective ⁶ | The course aims to present their main programming systems used in modelling, simulation and control of mechatronic systems. The accumulation of knowledge related to these systems allow for the formation of future mechanical engineer, specialist in Mechatronics |
| Specific objectives ⁷ | <ul style="list-style-type: none"> Information on the characteristics of mechatronic systems. Modeling and simulation of mechatronic systems using MATLAB programming environment. Presentation and application of the software used for programming of the microcontrollers. The use of software used for programming logic controllers of mechatronic systems structure. |
| Course description ⁸ | Information on the characteristics of mechatronic systems. Modeling and simulation of mechatronic systems using MATLAB programming environment. Software used for programming the microcontrollers of the structure of mechatronic systems. Programmable logic controllers used in mechatronic systems command. |

| Assessment | | | Schedule ⁹ | Percentage of the final grade (minimum grade) ¹⁰ |
|-----------------------|---|------|-----------------------|---|
| Continuous assessment | Class tests along the semester | | | % |
| | Activity during tutorials/ laboratory works/projects/practical work | | Week 1-14 | 20% |
| | Assignments, homework | | Week 14 | 30% |
| Final assessment | Final assessment form ¹¹ | Exam | Exam period | 50% |
| | Examination procedures and conditions: 1. Exam with three subjects from the curriculum, time 2 h, percent of the final grade 50 %. 2. Applications evaluation, percent of the final grade 20 %. 3. Assessments of the homework, percent of the final grade 30 %. | | | |

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| Course organizer | prof. dr. ing. Leohchi Dumitru | |
| Teaching assistants | prof. dr. ing. Leohchi Dumitru | |