

Code winter: 05-EIT-EMS-CP-SP5, spring: 05-EIT-EMS-CP-SP6

Course item: .....

## 1. INFORMATION ABOUT THE COURSE

### A. Basic information

|   |  |
|---|--|
| Name of course                              | <b><i>Scripting languages programming</i></b>                                    |
| Study level                                 | <i>First degree</i>  |
| Unit running the study programme            | <i>Faculty of Telecommunication, Computer Science and Electrical Engineering</i> |
| Study programme                             | <i>Computer science</i>  |
| Speciality                                  |  |
| Name of teacher (s) and his academic degree | <i>Tomasz Marciniak, PhD</i>   |
| Introductory courses                        | <i>None</i>  |
| Prerequisites                               | <i>None</i>  |

### B. Semester/week schedule of classes

| Semester         | Lectures | Classes | Laboratories | Project | Seminars | Field exercises | ECTS |
|------------------|----------|---------|--------------|---------|----------|-----------------|------|
| winter or summer | 30       |         | 30           |         |          |                 | 5    |

## 2. EFFECTS OF EDUCATION (acc. to National Qualifications Framework)

|             |  |
|-------------|--|
| Knowledge   | <i>on successful completion of the course student is supposed to understand and have a knowledge about Python and Perl programming. Will be able to define algorithm design paradigm of programming style. Student will have the knowledge to the discussion of program validation.</i>  |
| Skills      | <i>on successful completion of the course student is supposed to: construct algorithms using basic algorithmic techniques and solving simple engineering problems using scripting languages</i>  |
| Competences | <i>on successful completion of the course student is supposed to: work in a team creating simple scripting programs, analyse the performance of algorithms will be able to implement the algorithms presented in either the flowchart as well as a list of steps. It will have the skills to develop and optimize algorithms in each scripting languages</i> |

## 3. TEACHING METHODS

*multimedia lecture, lab*

## 4. METHODS OF EXAMINATION

*written exam at the end of lecture, oral reply at the end of lab*

## 5. SCOPE

|              |  |
|--------------|--|
| Lectures     | <i>Summary of scripting languages, the syntax of Perl and Python languages, types of data, loops, conditional instructions, working with files, working with network, regular expressions, using the standard and user library, the possibility of advanced search of Python, integration with the Linux and Windows operating system, logical and arithmetic operations, stream processing text data.</i> |
| Laboratories | <i>Adequate to what is outlined on the lecture.</i>  |

## 6. LITERATURE

|                          |  |
|--------------------------|--|
| Basic literature         | 1. <i>Programming Python 4<sup>th</sup> Edition</i> , Mark Lutz, O'Reilly, 2011; |
| Supplementary literature | 1. <i>Python Cookbook</i> , David Beazley, O'Reilly, 2013                        |