DESCRIPTION OF THE COURSE OF STUDY
FOR EXCHANGE STUDENTS

Name of the course in	English	*Application Software*
	Polish	*Oprogramowanie użytkowe*

1. LOCATION OF THE COURSE OF STUDY WITHIN THE SYSTEM OF STUDIES

1.1 Field of study	physics
1.2 Level of study	1st degree

2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

2.1 Language of instruction	English
2.2 Semesters in which the course of study is offered	Spring
2.3 ECTS credits	2

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes	30 hrs of lectures
3.2. Form of assessment	homework
3.3. Literature	- Tobias Oetiker, The Not So Short Introduction to LATEX2ε, http://tug.ctan.org/info/lshort/english/lshort.pdf, - OriginLab Manual, https://www.originlab.com/pdfs/Origin2017_Documentation/English/Origin_User_Guide_2017_E.pdf -Mathematica Tutorial, https://library.wolfram.com/infocenter/Books/8511/NotebooksAndDocumentsPart1.pdf https://library.wolfram.com/infocenter/Books/8511/NotebooksAndDocumentsPart2.pdf

4. OBJECTIVES, SYLLABUS CONTENT

4.1. Course objectives

C1. To give students a knowledge of the advanced capabilities of the most popular programs for document preparation, data analysis and presentation of results.
C2. Developing skills to prepare a professional document with the use of automatic typesetting software
C3. Developing skills to analyze and visualize scientific data, prepare graphs and professional, interactive reports

4.2. Detailed syllabus:

1. LATEX software: installation and configuration of components necessary to work with the package, the basics of the LATEX language, formatting text documents containing graphic elements using the TeXstudio environment, a scientific article template based on the RevTEX class, a thesis template.
2. Analysis and presentation of measurement data using the OriginLab program: data import and management, preparation of charts, best fit curves, preparation and printing of reports.
3. Numerical calculations using Mathcad or Mathematica: data import, analysis and visualization, numerical simulations and modeling, preparation of professional, interactive reports.