INFORMATION TECHNOLOGIES

Faculty of Computer Science			
Study programme:	**Computer Science**	Degree level:	**Engineer's degree full-time programme**
Specialization	**---**	Diploma path:	**2026/2027W - 2026/2027S**
Module name:	**Information Technologies** (Technologie informacyjne)		
Module type:	**obligatory** / **Semester: 1** / ECTS:**2** / Module ID:**FCS-00061**		
No. of hrs in semester:	Lecture (L) - **0** Classes(C) - **0** Specialization workshop (SW) - **30** Project (P) - **0** Laboratory classes (LC) - **0** Seminar (S) - **0**		
Prerequisites	-		

Aims and objectives:	The aim of the course is to prepare students to work with software applications supporting document creation and edition (e.g. articles). A student will be able to prepare efficiently a document containing text and graphics and to format it properly. She/he will be able to use a spreadsheet to perform calculations. She/he will know how to prepare graphics to place it in a document or in a presentation as well as a presentation itself.		
Forms of teching activities::	specialization workshop,	Assessment:	Evaluation must be relevant to the intended learning outcomes: Evaluation of tasks realization during classes in a computer workshop. Final evaluation: preparation of a text document, a graphics and a presentation according to the list of requirements.
Module content:	Special workshop: Tags language LaTeX: template usage, insertion of formulae, tables and graphics, structure document creation, automatic numeration, page formatting, presentation creation, use of additional packages. Office software package LibreOffice (or MS Office). Text processor LibreOffice Writer (or MS Office Word): basic edition commands, formatting, paragraph styles, character styles, automation. Spreadsheet LibreOffice Calc (or MS Office Excel): formulae creation, built-in functions usage, graphs creation. Presentation graphic program LibreOffice Impress (lub MS Office PowerPoint): preparation of a presentation and its formatting, animation.		
Teaching methods:	subject exercises, programming, lecture problem,		

Learning outcomes

Symbol	Specify min. 4, max. 8 learning outcomes in the following order: knowledge – skills – competence. Each learning outcome must be verifiable	Reference to the programme learning outcomes of education
LO1	knows the tags language LaTeX on the basic level	INF1_W14 INF1_U07 INF1_U17
LO2	knows software packages to text and graphics processing and a spreadsheet program on the basic level	INF1_W14 INF1_U07 INF1_U17
LO3	knows how to prepare a document, a presentation, a graphics and a spreadsheet with usage of proper software application	INF1_W14 INF1_U07 INF1_U17
LO4	knows how to use information and communications techniques	INF1_W14 INF1_U07 INF1_U17

No. of learning outcome	Methods of assessing the learning outcome	Type of teaching activities (if more than one) during which the outcome is assessed
LO1	evaluation of exercises completion, final evaluation	Sw
LO2	evaluation of exercises completion, final evaluation	Sw
LO3	evaluation of exercises completion, final evaluation	Sw
LO4	evaluation of exercises completion, final evaluation	Sw

Student's workload (in hours)	**1** - Attendance at specialistic workshop	None	30
	2 - Project tasks realization (including preparation of a presentation)	None	20
		TOTAL:	**50**

Quantitative indicators	Student's workload - activities that require direct teacher participation: (1)	30	**ECTS** 1.2
	Student's workload connected with practical classes (2)+(1)	50	2.0

Basic references:	1. M. Goossens, F. Mittelbach, A. Samarin, The LaTeX companion, 1993. 2. G. Grätzer, Math into LaTeX : an introduction to LaTex and AMS-LaTeX, 1996. 3. L. Lamport, LaTeX: A Document Preparation System (2nd Edition), Addison-Wesley Professional, 1994.
Further reading	1. https://en.libreoffice.org/ 2. http://www.miktex.org/

Unit:	Department of Mathematics	Lecturer/ instructor	dr Krzysztof Piekarski
Date of issuing the programme:	30th March 2026	Author of the programme:	dr Krzysztof Piekarski

L - lecture, C - classes, LC - laboratory classes, P-project, SW - specialization workshop, S - seminar