

**FACULTY OF PURE AND APPLIED MATHEMATICS****SUBJECT CARD****Name in Polish:** Profesjonalny skład tekstu w systemie LaTeX**Name in English:** Professional document preparation in the LaTeX system**Main field of study:** .....**Specialization (if applicable):** .....**Level and form of studies:** 3<sup>rd</sup> level**Kind of subject:** Interdisciplinary faculty course**Subject code:** MAT1311**Group of courses:** ~~TAK~~ / NIE\*

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30				
Number of hours of total student workload (CNPS)	45				
Form of crediting	Crediting with grade*	Examination / crediting with grade*	Examination / crediting with grade*	Examination / crediting with grade*	Examination / crediting with grade*
For group of courses mark (X) final course					
Number of ECTS points	2				
including number of ECTS points for practical (P) classes					
including number of ECTS points for direct teacher-student contact (BK) classes	2				

**PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES**

1. Basic knowledge of mathematical and engineering notation.
2. Basic computer skills.

**SUBJECT OBJECTIVES**

- C1. Acquire knowledge of the LaTeX language and typographic rules.  
 C2. Obtain knowledge of preparation of intermediate complicated documents.  
 C3. Practice in transformations between documents like PhD thesis, a journal article, a presentation.

### SUBJECT EDUCATIONAL EFFECTS

Relating to knowledge:

PEK\_W01 has systematic knowledge of preparation of theses, including Ph.D. thesis and journal articles.

Relating to skills:

PEK\_U01 knows how to prepare a multimedia presentation in English on the implementation of research

PEK\_U02 demonstrates proactive in preparing scientific publications in book form or in the form of article for publication in a peer reviewed scientific journal at national or international level, or in-reviewed report of the international scientific conference

PEK\_U03 is able to prepare and make a public presentation of the results of scientific or artistic work, including his doctoral thesis

Relating to social competences:

PEK\_K01 is aware of the social role of scientist

### PROGRAMME CONTENT

Form of classes - lecture		Number of hours
Lec1	Introduction to TeX. Error messages.	2
Lec2	Main commands.	2
Lec3	Math mode.	2
Lec4	Complex structures of math mode.	2
Lec5	Selected environments of text mode.	2
Lec6	Structure of a document. Counters. Catcodes.	2
Lec7	Selected typographic rules.	2
Lec8	Introduction to macros.	2
Lec9	More advanced macros. Structured definitions.	2
Lec10	Graphics in LaTeX.	2
Lec11	Table of contents, index, bibliography. BibTeX.	2
Lec12	Creating presentations: beamer.	2
Lec13	Selected LaTeX packages.	2
Lec14	Typography of a book and a journal article. Praxis.	2
Lec15	Praxis of programming in TeX.	2
Total hours		<b>30</b>

### TEACHING TOOLS USED

N1. lecture with multimedia presentation

N2. project with discussions

### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester	Educational effect number	Way of evaluating educational effect achievement
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end)		
F1	PEK_W01, PEK_U02	exam
F2	PEK_W01, PEK_U01 PEK_U02, PEK_U03, PEK_K01	project
$P=0.75 \cdot F1 + 0.25 \cdot F2$		

PRIMARY AND SECONDARY LITERATURE	
<p><b><u>PRIMARY LITERATURE:</u></b></p> <p>[1] Leslie Lamport, LaTeX. System opracowywania dokumentów. Podręcznik i przewodnik użytkownika. WNT, 2004.</p> <p>[2] Kazimierz Borkowski, LaTeX. Profesjonalny skład publikacji, 1992.</p>	
<p><b><u>SECONDARY LITERATURE:</u></b></p> <p>[1] Donald E. Knuth, TeX. Przewodnik użytkownika. WNT, 2005.</p> <p>[2] Antoni Diller, LaTeX wiersz po wierszu: zasady i techniki przetwarzania dokumentów, Helion, 2001</p> <p>[3] Helmut Kopka, A guide to LaTeX2e: document preparation for beginners and advanced users, Addison-Wesley, 1995</p>	
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)	
<p><b>Dr inż. Przemysław Scherwentke</b>  <a href="mailto:Przemyslaw.Scherwentke@pwr.edu.pl">Przemyslaw.Scherwentke@pwr.edu.pl</a></p>	

MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT  
**Professional document preparation in the LaTeX system**  
 AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY

Subject educational effect	Correlation between subject educational effect and educational effects defined for main field of study and specialization (if applicable)**	Subject objectives***	Programme content***	Teaching tool number***
PEK_W01	I3_W05	C1, C2, C3	Lec1-15	N1, N2
PEK_U01	I3_U04	C2, C3	Lec1-15	N1, N2,
PEK_U02	I3_U07	C1, C2, C3	Lec1-15	N1, N2
PEK_U03	I3_U08	C1, C2, C3	Lec1-15	N1, N2
PEK_K01	I3_K05	C2	Lec1, 10-13	N1

\*\* - enter symbols for main-field-of-study/specialization educational effects

\*\*\* - from table above