STUDY MODULE DESCRIPTION FORM

Name of the module/subject	Code
Technologies of information (ECDL)	**1010341721010349394**

Field of study	Profile of study (general academic, practical)	Year /Semester
Mathematics in Technology	**(brak)**	**1 / 2**
Elective path/specialty	Subject offered in:	Course (compulsory, elective)
-	**Polish**	**obligatory**

Cycle of study:	Form of study (full-time,part-time)
First-cycle studies	**full-time**

No. of hours	No. of credits
Lecture: **-** Classes: **-** Laboratory: **60** Project/seminars: **-**	**3**

Status of the course in the study program (Basic, major, other)	(university-wide, from another field)
(brak)	**(brak)**

Education areas and fields of science and art	ECTS distribution (number and %)

Responsible for subject / lecturer:

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Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Knowledge of the course of Information Technology from the first semester.
2	**Skills**	Computer skills. The ability to effectively self-education in a field related to the chosen field of study.
3	**Social competencies**	Knowledge of the limits of their knowledge and understanding of the need for further education.

Assumptions and objectives of the course:

Obtaining the knowledge, skills and competences in the field of information technologies with special emphasis on the requirements of the European Computer Driving Licence Advanced) in the field of an advanced database use. Obtaining the knowledge, skills and competence in the Visual Basic for Applications (VBA) and the typesetting and presentations using TeX / LaTeX.

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. Knowledge of the ways of the application of mathematical methods in selected areas of science. - [K_W09]
2. Elementary knowledge of information technology in the field of architecture and software computer systems, the use of basic tools and information technology, as well as knowledge of relational databases - [K_W15]

Skills:

1. Has the skills of self-education, including in order to improve professional competence and social. - [K_U30]
2. Can work individually and in a team knows how to estimate the time needed for the commissioned work; is able to develop and implement a work schedule that ensures meeting the deadline. - [K_U29]

Social competencies:

1. Knowledge of the limitations own knowledge and understands the need for further education. - [K_K01]

Assessment methods of study outcomes

Checking the skills and competences in the form of tests.
Continuous evaluation for each class (awarding bonuses to activity and quality perception).
Get extra points for the activity in the classroom, and in particular for:
- propose to discuss additional aspects of the subject;
- effectiveness of the application of knowledge when solving a given problem;
- the ability to work within a team;
- comments relating to the improvement of teaching materials;
- aesthetic accuracy reports and tasks of the self-study.

Course description

Revised 2017

Standards in computer science. Hardware. Software. Digital representation of data. Services in computer networks.
Word processing:
- Use advanced text formatting, paragraph, column and table formatting. Converting text into tables and tables in the text.
- Working with references such as footnotes, endnotes, and signatures. Creating a table of contents, links and references.
- Increasing labor productivity through the use of building blocks, templates and forms.
- Efficient use of macros and advanced mail merge options.
- The use and application options in the text linking, connecting and inserting objects to data integration.
- Working with documents main and subordinate. The use of security features document.
- Work with watermarks, sections, headers and footers.

Managerial and presentation graphics:
- The impact of the auditorium and the environment delivering a presentation on the planning and design presentation.
- Ability to create and modify templates and format slide background.
- Ability enrichment presentations using built-in drawing tools and image processing. The ability to insert and modify diagrams and formatting charts at the advanced level.
- The ability to insert music and video files for presentation and use of animation.
- Ability to use links to files, inserting objects embedded in order to link data.
- Create custom slide shows, setting the parameters of the show and control the slideshow.

Spreadsheets:
- Use advanced formatting options such as conditional formatting or define your own numerical formats.
- Using the related operations logical, statistical and financial.
- Create charts and the use of advanced formatting charts.
- Use pivot tables to analyze the data, sorting and filtering data.
- Define scenarios.
- Operations in the worksheet using the names assigned to cell ranges, macros and templates.
- Defining the criteria for validation of data entered into the worksheet.
- The use of links, import the data into the worksheet, change tracking.
- Compare and Merge Workbooks.
- Protecting sheets.

Basic bibliography:

1. Alicja Żarowska-Mazur, Waldemar Węglarz, ECDL Advanced na skróty, PWN
2. John Walkenbach, Excel 2013 PL. Programowanie w VBA. Vademecum Walkenbacha, Helion
3. Marcin Borkowski, Bartłomiej Przybylski, LaTeX książka kucharska

Additional bibliography:

Result of average student's workload

Activity	Time (working hours)

1. participation in laboratory classes (30x2 hrs) 2. participation in the consultations related to the implementation of the education process, in particular laboratory / project 3. completion (within own work) reports on laboratory exercises. 4. familiarization with the indicated literature / teaching materials	60 5 5 10

Student's workload		
Source of workload	**hours**	**ECTS**
Total workload	80	3
Contact hours	65	2
Practical activities	70	3