POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

COURSE DESCRIPTION CARD - SYLLABUS

Course name

Technologies of information I (ECDL)

Course

Field of study	Year/Semester
Mathematics in Technology	1/1
Area of study (specialization)	Profile of study
-	general academic
Level of study	Course offered in
First-cycle studies	polish
Form of study	Requirements
full-time	compulsory

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
0	60	0
Tutorials	Projects/seminars	
0	0	

Number of credit points

Lecturers

Responsible for the course/lecturer:

dr inż. Karol Gajda

email: karol.gajda@put.poznan.pl

tel. 61665-2805

Faculty Of Control, Robotics & Electrical
Engineering

ul. Piotrowo 3A 60-965 Poznań

Responsible for the course/lecturer:

Prerequisites

Basic knowledge of high school. Computer skills. The ability of effective self-education in the field related to the chosen field of study. Knowledge of the limits of own knowledge and understanding the need for further education.

Course objective

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 advanced word processing, presentation graphics and spreadsheets.

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Course-related learning outcomes

Knowledge

1. has expanded and deep knowledge of mathematical modeling

2. has the ordered and theoretically founded knowledge of computer science, including numerical methods; knows at least one software package or programming language

Skills

1. is able to use devices, tools, etc. in accordance with general requirements and technical documentation; knows how to apply the principles of health and safety at work

2. is able to use the knowledge and methods and tools to solve typical engineering tasks

3. is able to prepare documentation or to prepare a presentation with a multimedia presentation related to the implementation of an engineering task using specialized terminology

4. can work individually and in a team; knows how to estimate the time needed to complete the task ordered; is able to develop and implement a schedule of works to ensure that the deadline is met

Social competences

1. is aware of the level of his knowledge in relation to the conducted research in exact and technical sciences

2. is aware of deepening and expanding knowledge to solve newly created technical problems

3. is able to think and act in a creative and entrepreneurial way, taking into account safety, ergonomics of work and its economic aspects, is aware of the need to initiate activities for the public interest and responsibility for the effects of the team and its participants

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

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.

Programme content

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Standards in computer science. Hardware. Software. Digital representation of data. Services in computer networks.

University information systems.

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.

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- 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.

Teaching methods

Laboratory exercises: Program content explained in theoretical and practical way by the teacher using multimedia presentations, discussed programs and performing the tasks given by the teacher - practical exercises.

Bibliography

Basic

1. Alicja Żarowska-Mazur, Waldemar Węglarz, ECDL Advanced na skróty, syllabus V. 2.0, edycja 2015, Wydawnictwo Naukowe PWN, 2015

Additional

1. Joan Lambert, Microsoft Word 2019 step by step,

2. Curtis Frye, Microsoft Excel 2019 step by step,

3. Joan Lambert, Microsoft PowerPoint 2016 step by step.

Breakdown of average student's workload

	Hours	ECTS
Total workload	80	3,0
Classes requiring direct contact with the teacher	65	2,0
Student's own work (literature studies, preparation for laboratory, preparation for tests, preparing the project) [1]	15	1,0

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[1] delete or add other activities as appropriate