



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Scientific and Technical Writing

### Course

Field of study

Year/Semester

Computing

1/2

Area of study (specialization)

Profile of study

Cybersecurity

general academic

Level of study

Course offered in

Second-cycle studies

English

Form of study

Requirements

Full-time

compulsory

### Number of hours

Lecture

Laboratory classes

Other (e.g. online)

Tutorials

Projects/seminars

30

### Number of credit points

2

### Lecturers

Responsible for the course/lecturer:

Responsible for the course/lecturer:

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### Prerequisites

Students should have language skills at B2 level in accordance with the requirements set out by the Common European Framework of Reference for Languages. They should also have skills that are necessary to present in English specialized aspects concerning computing.

### Course objectives

1. Provide students with knowledge regarding academic written language.
2. Develop students' skills of effective academic and ESP language usage within the scope of four language skills, emphasizing writing and speaking.
3. Develop students' skills in adapting primary sources for scientific papers.
4. Develop students' abilities of critical thinking and evaluation of their own and others' scientific works.



5. Develop students' teamwork skills.

### Course-related learning outcomes

#### Knowledge

1. Acquire formal academic language vocabulary.
2. Comprehend the principles of longer written utterances.
3. Know the main structural elements of scientific works.

#### Skills

1. Can obtain information from literature and other English sources, interpret and critically evaluate them, and use them in preparing the new texts.
2. Is able to formulate professional texts in English.
3. Is able to evaluate the readers' expectations and capabilities and use such information for adequately selecting the materials.
4. Is able to take advantage of editing and proofreading remarks.
5. Is able to prepare and present cutting-edge technology in computer sciences, based on research papers.

#### Social competences

1. Understands the need for conveying information and knowledge ethically, professionally, shortly, and comprehensively while accounting for the needs and capabilities of the readers.
2. Understands the need and benefits of team working.
3. Can critically evaluate one's own and others' work and learn from one's mistakes.

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment: based on continuous progress assessment.

Summative assessment: continuous assessment during every class (written utterances), marking during every class, including teamwork, discussing extended aspects of a problem, and defending one's own work.

### Programme content

The curriculum comprises of the following topics:

Aim of scientific and technical writing. Main features of scientific articles. Elements of a formal definition. Elements and types of paragraphs (process, comparison/contrast). Forms of scientific expression. Project presentation. Organization and writing process. Differences between summary and paraphrase. The issue of plagiarism in scientific papers. Summarising: main structural elements,



including relevant information in a logical order. Summary and abstract. Quoting. Editing and proofreading scientific papers. The most common writing mistakes.

The curriculum contains the following grammar and vocabulary areas:

Formal and informal language. Articles. Cohesion and coherence. Logical linking in sentences. Tenses. Text cohesion from the form, logical, and lexicographic viewpoints. Argumentation and expressing an opinion. Coordinating and subordinating conjunctions. Nominalisations.

### Teaching methods

Discussion by examples. Critical analysis of real-world materials. Cooperative argumentative dialogue between individuals (the Maieutic Socratic Method). Brainstorming. Practical exercises.

### Bibliography

#### Basic

1. Cargill, M. & O'Connor, P. (2<sup>nd</sup> ed.). 2013. Writing Scientific Research Articles. Strategy and Steps. Wiley- Blackwell.
2. Bailey, S. 2011. Academic Writing: A handbook for international students. Routledge.
3. Finkelstein, L., Jr. 2000. Pocket Book of Technical Writing for Engineers and Scientists. McGraw-Hill.

#### Additional

1. Glasman-Deal, H. 2010. Science Research Writing for Non-Native Speakers of English. Imperial College Press.
2. Aliotta, M. 2018. Mastering Academic Writing. CRC Press.
3. Wallwork, A. 2011. English for Writing Research Papers. Springer.
4. Wallwork, A. 2013. English for Academic Research: Writing Exercises. Springer.
5. Hewings, M. 2012. Cambridge Academic English, Upper Intermediate. Cambridge University Press.
6. McCarthy, M. & O'Dell, F. 2016. Academic Vocabulary in Use (2<sup>nd</sup> ed.). Cambridge University Press.

### Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (preparation for tutorials, presentation preparation, report preparation) <sup>1</sup>	20	1,0

<sup>1</sup> delete or add other activities as appropriate