



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Scientific and Technical Writing [S2Inf1>STW]

### Course

Field of study

Computing

Year/Semester

1/2

Area of study (specialization)

Edge Computing

Profile of study

general academic

Level of study

second-cycle

Course offered in

english

Form of study

full-time

Requirements

compulsory

### Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

0

Tutorials

30

Projects/seminars

0

### Number of credit points

2,00

### Coordinators

mgr Nuala Mederski

nuala.mederski@put.poznan.pl

### Lecturers

### 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 specialized aspects concerning computing in English. Course objectives: 1. Provide students with knowledge regarding academic written language. 2. Develop students' skills in effective academic and ESP language usage within the scope of the four language skills, emphasizing writing and speaking. 3. Develop students' skills in adapting primary sources for scientific papers. 4. Develop students' abilities in critical thinking and the evaluation of their own and others' scientific work. 5. Develop students' teamwork skills.

### Course objective

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### 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:

The learning outcomes presented above are verified using the following:

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 the following topics:

Aims 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 summaries and 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.

Nominalisation.

### Teaching methods

Discussion with 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. (2nd 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 (2nd ed.). Cambridge University Press.
7. Morley, J., Doyle, P. & Pople, I. 2021. University Writing Course. Express Publishing.

## Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,00
Classes requiring direct contact with the teacher	30	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	20	1,00