# COURSE DESCRIPTION CARD - SYLLABUS

Course name
Scientific and Technical Writing [S2Bioinf2>STW]

## Course

Field of study
Bioinformatics

Year/Semester
1/2

Area of study (specialization)
–

Profile of study
general academic

Level of study
second-cycle

Course offered in
Polish

Form of study
full-time

Requirements
compulsory

## Number of hours

Lecture
0

Laboratory classes
0

Other
0

Tutorials
30

Projects/seminars
0

## Number of credit points

2,00

## Coordinators

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## 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 for presenting specialised aspects concerning computing in English.

## Course objective

1. To provide students with knowledge regarding academic written language. 2. To develop students' skills in effective academic and ESP language usage within the scope of the four language skills, emphasizing writing and speaking. 3. To develop students' skills in adapting primary sources for scientific papers. 4. To develop students' abilities in critical thinking and the evaluation of their own and others' scientific work. 5. To develop students' teamwork skills.

## Course-related learning outcomes

Knowledge:
1. acquisition of formal academic language vocabulary.
2. understanding of the principles of longer written utterances.
3. understanding of the main structural elements of scientific work.

Skills:
1. can obtain information from the literature and other English sources, interpret and critically evaluate them, and use them in preparing new texts.
2. is able to formulate professional texts in English.
3. is able to evaluate readers' expectations and capabilities and use such information for the adequate selection of materials.
4. is able to acknowledge and apply 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 to convey information and knowledge ethically, professionally, concisely and coherently 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:
- Individual and group written tasks, completed and assessed during/outside class
- Improvement of work according to the teacher's instructions
- Working in a group to formulate and solve problems, presenting the results orally, both spontaneously and after preparation

- Formative assessment: based on an assessment of continuous progress (short tests / exercises / homework tasks)

- Summative assessment: assessment of students' written work completed individually or in teams at the end of the instructional unit, and of students' ability to work in a team, discuss aspects of a problem extensively and defend their own work.

## Programme content

The curriculum comprises the following areas:
The aims of scientific and technical writing
The main features of scientific articles
Paragraph structure
Different scientific and technical texts
Project presentation
The writing process: citing and 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 (indicating structure, signposting, linking and referencing)
Tenses
Argumentation and expressing an opinion
Nominalisation
Comparing and contrasting
Numerical phrases
Hedging
Punctuation
Parallel structure

## Course topics

• Critical thinking • Ethics (plagiarism, note-taking, paraphrasing, summary writing)
• Research papers: Results, Methods, Introduction & Literature Review, Discussion & Conclusion, Abstract

& Title
• Presenting at a conference / poster presentations
• Technical / Business Writing: Memos
• Technical definitions and specifications
• Operational instructions & procedures
• Progress reports
• CVs

## Teaching methods

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

## Bibliography

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

Additional:
1. Aliotta, M. 2018. Mastering Academic Writing. CRC Press.
2. Glasman-Deal, H. 2010. Science Research Writing for Non-Native Speakers of English. Imperial College Press.
3. Hewings, M. 2012. Cambridge Academic English, Upper Intermediate. Cambridge University Press.
4. McCarthy, M. & O'Dell, F. 2016. Academic Vocabulary in Use (2nd ed.). Cambridge University Press.
5. Morley, J., Doyle, P. & Pople, I. 2021. University Writing Course. Express Publishing.
6. Wallwork, A. 2011. English for Writing Research Papers. Springer.
7. Wallwork, A. 2013. English for Academic Research: Writing Exercises. Springer.

## 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 |