



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 (e.g. online)
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 in English specialised aspects concerning computing.

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. 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