



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Vocational internship [S1Bioinf1>PRAKT]

### Course

Field of study  
Bioinformatics

Year/Semester  
3/6

Area of study (specialization)  
–

Profile of study  
general academic

Level of study  
first-cycle

Course offered in  
Polish

Form of study  
full-time

Requirements  
compulsory

### Number of hours

Lecture  
0

Laboratory classes  
0

Other  
160

Tutorials  
0

Projects/seminars  
0

### Number of credit points

6,00

### Coordinators

dr inż. Izabela Janicka-Lipska  
izabela.janicka-lipska@put.poznan.pl

dr Maciej Machowiak  
maciej.machowiak@put.poznan.pl

### Lecturers

### Prerequisites

Students starting this course should have essential competencies acquired during the earlier years of studies, which allow them to do the internship. When it comes to social competencies, the students must present honesty, responsibility, perseverance, cognitive curiosity, creativity, personal culture, and respect for other people. The student has knowledge of compulsory and elective subjects in accordance with the implementation of the curriculum for the Bioinformatics. The student knows the basic principles of occupational safety and health, understands the need for further training. The student knows the rules of organization and implementation of internships contained in the following documents: (1) Regulations of student internships at Poznań University of Technology; (2) The procedure for crediting student internships included in the educational program of the Faculty of Computing and Telecommunications of Poznań University of Technology; (3) Procedure for crediting student internships included in the educational program of the Faculty of Computing and Telecommunications of Poznań University of Technology on the basis of work experience. All documents on internships can be downloaded from the website: <https://cat.put.poznan.pl/harmonogramy/praktyki-i-staze/procedura-i-dokumenty>

## Course objective

The purpose of the student internship is to familiarize students with the practical aspects of the bioinformatics profession and to get to know a potential future employer.

## Course-related learning outcomes

### Knowledge:

Knows and understands social, economic and legal conditions of his activity, including issues related to protection of intellectual and industrial property.

Knows and understands basic principles of safety and hygiene at work and ergonomics.

Knows and understands the basics of management, including quality management and running a business.

### Skills:

Is able to use language appropriate to the undertaken scientific discussions in communication with various environments.

Is able to independently acquire knowledge and improve their qualifications.

Is able to undertake work in an enterprise, individually and in a team, plan and organize individual and team work, observe safety rules connected with this work.

### Social competences:

Is ready for lifelong learning and improving his/her competences.

Is ready to cooperate and work in a group, assuming different roles in it.

Is ready to define priorities for the realization of a task defined by himself/herself or by others.

Is ready to take responsibility for decisions made.

Is ready to take responsibility for his/her own and others' work safety; to take appropriate action in case of emergency.

Is ready to think and act in an entrepreneurial manner.

Is ready to fulfill the social role of a university graduate.

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

### Summative assessment:

The achievement of learning outcomes is verified by the practice supervisor on the basis of the following documents:

(1) a report on the completion of the internship, in which the achievement of the assumed learning outcomes is confirmed by the internship supervisor from the company;

(2) a certificate of completion of the internship - if issued by the institution hosting the student for the internship.

If the student passes the internship on the basis of work experience, the following documents provided by the student are analyzed:

(1) a report on the completion of the internship - completed and signed by a representative of the Company,

(2) the original document confirming employment.

The professional work performed must guarantee the achievement, assumed for student internships, of the learning outcomes.

## Programme content

### Tasks of the student:

1. to receive OHS training according to the company regulations.

2. perform tasks from the internship program in the following thematic scope:

- learning the principles of work organization: organizational structures, division of competences, procedures, work planning, control, including: getting acquainted with the structure of the company and functions of individual departments;

- acquaintance with the ISO-900x certificate, if the company has it;

- completing an independent engineering task appropriate to the apprentice's level of training and accounting for completion of this task;

- joining in the collaborative design and implementation of systems being addressed at the internship site;

- becoming familiar with the construction, programming methods, assembly, commissioning, or testing of systems operated, designed, assembled, or commissioned at the site;
  - involvement in the development, testing, documentation, and implementation of software used in the company.
3. Preparation of a report on the implementation of the practice.

### Course topics

Topics closely related to the company's profile:

1. Receiving health and safety training according to the company's regulations.
2. Performance of tasks assigned by the employer related to larger projects of the enterprise or tasks individually prepared for apprentices - teamwork preferred.
3. Preparation of a report on the implementation of the internship.

### Teaching methods

Depending on the place of internship and the tasks carried out, the following teaching methods may be used: (1) problem or conversation lecture; (2) brainstorming; (3) project.

### Bibliography

Basic

1. Study regulations of full-time and part-time first and second cycle and long-cycle studies adopted by the Academic Senate of Poznań University of Technology (<https://put.poznan.pl/regulaminy>)
2. Organisational Regulations of Student Internship for students of Computer Science, Artificial Intelligence, and Bioinformatics at the Faculty of Computing and Telecommunications of the Poznan University of Technology.
- 3 The procedure for crediting student internships included in the educational program of the Faculty of Faculty of Computing and Telecommunications of Poznań University of Technology
- 4 Procedure for crediting student internships included in the educational program of the Faculty of Computing and Telecommunications of Poznań University of Technology on the basis of work experience Documents [2, 3, 4] can be downloaded from the website: <https://cat.put.poznan.pl/harmonogramy/praktyki-i-staze/procedura-i-dokumenty>)

Additional

1. B. Rączkowski, BHP w praktyce. Gdańsk: ODDK, 2014

### Breakdown of average student's workload

	Hours	ECTS
Total workload	160	6,00
Classes requiring direct contact with the teacher	0	0,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	160	6,00