COURSE DESCRIPTION CARD - SYLLABUS

Course name
Diploma Seminar [S2Bioinf2>SEM1]

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
0

Projects/seminars
30

Number of credit points

2,00

Coordinators

prof. dr hab. inż. Piotr Formanowicz
piotr.formanowicz@put.poznan.pl

Lecturers

Prerequisites

The student starting this course should have basic knowledge of the problems and methods of bioinformatics as well as biological problems whose effective solving requires an application of bioinformatics methods. He/she should have skills on creative solving biological problems using bionformatics methods and creating appropriate bioinformatics tools. Moreover, the student should present such attitudes as: honesty, responsibility, perseverance, cognitive curiosity, creativity, personal culture, respect for other people.

Course objective

The aim of the course is to provide students with basic knowledge on the preparation of a master thesis.

Course-related learning outcomes

Knowledge:
1. The student knows and understands the principles of research planning in the area of bioinformatics.
2. The student knows and understands the development trends of bioinformatics.
3. The student knows and understands the social, economic and legal conditions of his/her activity and the need to take them into account in practice, including issues related to the protection of intellectual

and industrial property.

Skills:
1. The student is able to fluently use and integrate information obtained from literature and electronic sources, in Polish and in English, interpret and critically evaluate them.
2. The student is able to draw conclusions, clearly formulate and exhaustively justify his/her opinions on the basis of data coming from various sources.
3. The student is able to prepare a presentation of research results in Polish and in English, and also discuss the results of his/her work in the scientific community.
4. The student is able to prepare a written study of research work in Polish and a short scientific report in English presenting the results of his/her research.
5. The student is able to assess the usefulness and the possibility of using new achievements in the area of bioinformatics.

Social competences:
1. The student is ready to learn throughout the whole life, inspiring and organizing the learning process of other people.
2. The student is ready to set priorities for the realization of a task defined by him/her or others.
3. The student is ready to identify and resolve ethical dilemmas related to practicing his/her profession.
4. The student is ready to systematically read scientific and popular science journals in order to expand and deepen his/her knowledge in bioinformatics.
5. The student is ready to systematically update his/her knowledge in the area of biology and computer science and seeing the possibilities of its practical application.
6. The student is ready to show a creative attitude in professional and social life.
7. The student 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:

Students' activity during classes and the effects of the implementation of tasks related to preparation of a master thesis are evaluated. At the end of a semester students prepare a short report on the tasks done during the classes. The grade for the report is a basis for determining the grade for passing the course.

Programme content

The course concerns issues related to the preparation of a master thesis.

Course topics

The issues presented and discussed during the course include:
1. Principles of editing a master thesis.
2. Using modern bibliographic databases.
3. The content of the master thesis.
4. Ways of solving bioinformatics problems and presenting the obtained results.

Teaching methods

Seminar: multimedia presentation, discussion with students.

Bibliography

Basic:
It depends on the topic of the engineering thesis.

Additional:
It depends on the topic of the engineering thesis.

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