



UNIWERSYTET PRZYRODNICZY WE WROCŁAWIU

Coding lab

Educational subject description sheet

Basic information

Field of study Bioinformatics	Education cycle 2020/21	
Speciality -	Subject code WBIHZBBIS.L10BO.0417.20	
Organizational unit The Faculty of Biology and Animal Science	Lecture languages english	
Study level First-cycle programme	Mandatory optional	
Study form Full-time	Block major subjects (conducted) in foreign languages	
Education profile General academic	Disciplines Subject related to scientific research No	
	Subject shaping practical skills Nie	
Teacher responsible for the subject	Joanna Szyda, Magda Mielczarek	
Other teachers conducting classes	Joanna Szyda, Magda Mielczarek	
Period Semester 5	Examination graded credit	Number of ECTS points 4.0
	Activities and hours laboratory classes: 45	

Goals

C1	Using the Linux operating system and open source bioinformatics software.
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Subject's learning outcomes

Code	Outcomes in terms of	Effects	Examination methods
Knowledge - Student knows and understands:			
W1	methods and tools for bioinformatic data analysis under the Linux operating system.	BI_P6S_WG07	written credit, project, active participation
Skills - Student can:			
U1	how to apply data analysis techniques in the command line interface of the Linux operating system to analyze biological data.	BI_P6S_UW01	written credit, project, active participation

Balance of ECTS points

Activity form	Activity hours*	
laboratory classes	45	
project preparation	45	
consultations	10	
Student workload	Hours 100	ECTS 4.0
Workload involving teacher	Hours 55	ECTS 2.0
Practical workload	Hours 45	ECTS 1.7

* hour means 45 minutes

Study content

No.	Course content	Activities
1.	1. Introduction to the programming environment. 2-5. Working in the Linux operating system in terminal and graphic environments. 6-8. Creating scripts in bash shell language. 9-10. Interpretation of obtained results - biological context. 11-14. A project involving planning, construction, software documentation and testing. 15. A practical test.	laboratory classes

Course advanced

Teaching methods:

project-based learning (PBL), teamwork, computer lab/laboratory

Activities	Examination methods	Percentage in subject assessment
laboratory classes	written credit, project, active participation	100%

Literature

Obligatory

1. Newham, C. Learning the bash Shell. O'Reilly
2. Sobell, MG. Practical Guide to Linux Commands

Kierunkowe efekty uczenia się

Kod	Treść
BI_P6S_UW01	Absolwent potrafi stosować zaawansowane techniki informatyki: pracować w środowiskach różnych systemów operacyjnych, stosować różne programy użytkowe, tworzyć proste programy komputerowe oraz projektować bazy danych biologicznych i zootechnicznych
BI_P6S_WG07	Absolwent zna i rozumie w stopniu zaawansowanym zagadnienia z zakresu problemów właściwych dla bioinformatyki oraz zna ich powiązania z innymi dyscyplinami przyrodniczymi i możliwościami ich wykorzystania w praktyce