Teaching Program

MANDATORY CLASSES	Semester	ECTS	Lectures	Exercises
1. Introduction to	1	6	45	30
biochemistry				
2. Introduction to genetics	1	7	45	45
3. Molecular genetics	1	7	30	45
4. Bioinformatics and	2	6	30	30
molecular evolution				
5. Genetic engineering	2	5	30	30
6. Neurogenetics	2	5	30	30
7. Developmental genetics	2	5	30	30
8. Cancer gemetics	2	4	15	30
9. Human genetics	3	5	30	30
10. Genomics	3	6	30	30
11. Genetic analysis	3	5	30	30
12. Genetics and selection of	3	5	30	30
microorganisms				
13. Genetics and selection of	З	6	30	30
microorganisms				
14. Pre-graduation practicum	4	15	-	90
ELECTIVE CLASSES	Semester	ECTS	Lectures	Exercises
1. Introduction to genetic engineering	1	5	30	30
2. Molecular biology	1	5	30	30
3. Molecular markers	2	4	30	15
4. Genetics of somatic cell	2	4	30	15
5. Synthetic biology	3	4	15	30
6. Internet resources in	3	4	15	30
molecular biology	5		10	00



Contact information: <u>DEPARTMENT OF GENETICS</u> Head of the program: Assoc. Prof. Robert Penchovsky, Dr.rer.nat. Room 363, Faculty of Biology, Sofia

University

phone/fax: +359-2-8167 340 e-mail: robert.penchovsky@hotmail.com website:http://penchovsky.atwebpages.com/

Sofia University's website: http://www.uni-sofia.bg/index.php/eng/

SOFIA UNIVERSITY St. Kliment Ohridski FACULTY OF BIOLOGY

8 Dragan Tzankov Blvd 1164 Sofia, Bulgaria phone/fax: +359-2-865 66 41

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SOFIA UNIVERSITY ST. KLIMENT OHRIDSKI

FACULTY OF BIOLOGY DEPARTMENT OF GENETICS

MASTER'S PROGRAM GENETICS and GENOMICS for non-biologists



Master's Program of Genetics and Genomics for non-biologists aims to build deep and lasting knowledge and practical skills in the fields of modern genetics and genomics.

Lectures on genetics of prokaryotes, genomics, bioinformatics and human genetics, combined with workshops and seminars are designed for students with an interest in modern genetic research.



The program will enable students to pursue career in research and teaching, in various industries as well as in academic institutions.

It aims to motivate students to carry further research for obtaining scientific degree "doctor".

Terms of Admission:

The admission of students is done by passing a competitive examination and discussion of genetics and genomics in January.

Competitive score:

1. The mean score of the university diploma

The graduated students can puresue their career in various institutes of dealing with fundamental molecular genetic studies as well as in various departments and fields of medicine and agriculture. They can work both at home and abroad.



For the realization of the Master's Program in Genetics and Genomics for non-biologists, the Department of Genetics has specialized laboratories gene and cell engineering, bacterial genetics, developmental genetics, cytogenetics in genome analysis and laboratory genetic analysis of drosophila.

The master's program of Genetics and Genomics for non-biologists

lasts four semesters. It has a total of 100 credits / ECTS /. The diploma thesis and pre-gradation practicum provides 15 credits. The curriculum consists of 14 mandatory and 6 elective classes.

Students select elective courses individually.

Last / fourth / semester is intended for preparation and defense of a thesis.

Graduated students in Genetics and Genomics for non-biologists acquire professional qualifications:

Master in Science in Molecular Biology with specialization of Genetics and Genomics