

Program of Study : Dentistry – English Programme
Course : Biology and Genetics
Abbreviation : BIO/ZAB11
Schedule : 30 hours of lectures
 45 hours of seminars
Course Distribution : first year, second semester
Number of Credits : 9
Course Form : Lectures, seminars

Lectures:

Teachers: Doc. RNDr. Vladimír Divoký, Ph.D.
 Doc. Mgr. Monika Horváthová, Ph.D.
 Doc. MUDr. Jana Volejníková, Ph.D.
 RNDr. Ivana Fellnerová, Ph.D.
 Mgr. Dana Šimková, Ph.D.

Study: Continuous

	Date	Subject	No. of Less.	Teacher
1	16.2. 2023	Genetic information and mutagenesis	2	Doc. Horváthová
2	23.2. 2023	Inheritance in multicellular organisms	2	Doc. Horváthová
3	2.3. 2023	Gonosomal inheritance	2	Dr. Šimková
4	9.3. 2023	Linkage and mapping of genes	2	Doc. Divoký
5	16.3. 2023	Molecular basis of selected genetic disorders	2	Doc. Divoký
6	23.3. 2023	Population genetics	2	Doc. Horváthová
7	30.3.2023	Genetics, genomics in medical application	2	Dr. Ján Gurský
8	6.4. 2023	Genetics and medical practice	2	Dr. Šimková
9	13.4. 2023	Biology of immune system	2	Dr. Fellnerová
10	20.4. 2023	Genetics of immunity	2	Dr. Fellnerová
11	27.4. 2023	Stem cells	2	Doc. Divoký
12	4.5. 2023	Viruses	2	Dr. Šimková
13	11.5. 2023	Human Genome. New genetic Technologies	2	Doc. Divoký
14	18.5. 2023	Human genetics: comprehensive lecture I	2	Doc. Divoký
15	25.5. 2023	Human genetics: comprehensive lecture II	2	Doc. Divoký

Lab work, Seminars:

Leading Teacher: Doc. Mgr. Monika Horváthová, Ph.D.

Doc. RNDr. Vladimír Divoký, Ph.D.

Teachers: Mgr. Dana Šimková, Ph.D.

Mgr. Pavla Kořalková, Ph.D.

RNDr. Leona Rašková Kafková, Ph.D.

Study: Continuous

	Date	Subject	No. of Less. Textbook
1	13.2.2023	Inborn Chromosomal Abnormalities	3 Chapters 2, 9, 10
2	20.2.2023	Mutations in Human Disease	3 Chapters 2, 6, 9
3	27.2.2023	Mendelian Inheritance	3 Chapters 5, 11
4	6.3.2023	Gonosomal Inheritance and Pedigrees	3 Chapter 5
5	13.3.2023	Linkage and Mapping of Genes	3 Chapter 8
6	20.3.2023	Non-Mendelian Inheritance	3 Chapter 15
7	27.3.2023	Genetic Control of Metabolism; Pathophysiology of Selected Disorders	3 Chapters 12, 13
8	3.4.2023	Population Genetics	3 Chapter 7
9	10.4.2023	Easter	
10	17.4.2023	Genetic Prognosis	3 Chapters 18, 19, 20
11	24.4.2023	Genetics of Immunity (substitute term)	3 Chapter 14
12	1.5.2023 <i>1st May: Public holiday</i>	Molecular biology I. (substitute term) DNA, RNA	3 Chapters 4, 6
13	8.5. 2023 <i>8th May: Public holiday</i> Sports Day UP: 10 th May	Molecular biology II. Proteins: Application in medicine Individual presentations to the theme	3
14	15.5. 2023	Comprehensive seminar: human genetics	3
15	22.5. 2023	Comprehensive seminar: human genetics II	3

Held in the room: TU-BIOA (2.017)

Requirements: The attendance of obligatory lab works and seminars in regular or in substitute terms;

70% of the maximal points from the minor tests

Students' presentations on current medical problems

Is required for achieving the semester credit.

Completed by:

Written examination in the final exam

60% of the maximal points required to obtain a credit.

Literature:

1. Practical lab works from biology (presentations and texts) and lecture presentations: files are available on website:
<http://biologie.upol.cz>
2. Thompson & Thompson: Genetics in Medicine. W.B. Saunders Company