



Introduction to the course: Genetics, second semester 1404-1405

Faculty: Medicine Department: Medical Genetics

Field and level of education: Human Genetics/Master's degree	:Course name and number Cancer Genetics ۱۲۱۱۰۲۱
Venue: Class Master's Degree	Date and time: Saturday ۱۳-۱۵
Number and type of units (theoretical/practical: ۲ theoretical units	
Prerequisite courses: Genetic engineering and molecular genetics	
Telephone and call days: Saturday to Wednesday, ۲۱۳	Name of the course instructor: Dr. Ghasemi
Email : addresss.s.ghasemi@skums.ac.ir sorayya.ghasemi@gmail.com	Office address: Faculty of Medicine

:Overall objective of the lesson

Understanding the importance of genetics in the development, detection, and treatment of cancers From a genetic perspective

:Specific lesson objectives * :After completing this course, students should be able to

۱- Describe the genetics of cancer and its history. Name the importance and characteristics of a cancer cell

۲- Explain the genetic causes of cancer, in terms of mutations in oncogenes, telomeres, signaling pathways, epigenetics, and mitochondria

۳- Describe new methods of genetic diagnosis of cancer using molecular biomarkers and new molecular-based methods and compare them with other and older methods. Describe new methods of gene therapy and immunotherapy in cancers

۴- Compare and describe childhood cancers with cancers of the elderly. Compare familial syndromic cancers with non-familial types

Main lesson resources Book title, author's name, year and place of publication, publisher's) name, chapter or page numbers in this lesson - if it is not necessary to read the entire book (or all its volumes as a source

New articles on the class topic

Cooper GM. Oncogenes. Jones & Bartlett Learning

Katan M, Parker PJ. Oncogenes and cell control. Nature.

Cossman J, editor. Molecular genetics in cancer diagnosis. Elsevier Publishing Company

Vogelstein B, Kinzler KW. The genetic basis of human cancer. McGraw-Hill; 2002.

Cancer Genetics Chapter, Medical Genetics Book, Translated by Nouri Deloui; Latest Version

How to evaluate students and the burden associated with each evaluation
A) During the course (quizzes, assignments, midterm exams, seminars, etc Barm: ۳۰٪ .The midterm exam will be held with the agreement of all students regarding the date Written exam: ۳ points, virtual test exam: ۱ point, student seminars: ۱ point, assignments during the semester: ۱ point
B) End of the course Barm: ۷۰٪ Written descriptive exam: ۱۴ points, ۱۰ descriptive points, ۲ multiple-choice test points, ۲ fill-in-the-blank points
Course instructor's policy regarding dealing with student absences and tardiness in the classroom ✓ .Absences exceeding the allowed amount will result in exclusion from the final exam ✓ Attendance is monitored carefully, and for each unexcused absence, ۲۵٪ will be deducted from the total score ✓ .Timely and active attendance at class meetings is required

Schedule for the presentation of the course program: Cancer Genetics, second semester ۲۰۱۷-۲۰۱۸					
Necessary preparation for students before starting class	Teacher	Title	Clock	History	Row
Study Resources Announcement Done and Related To Meeting Lesson	Dr. Ghasemi	History, status, definition and genetic basis of cancer	۱۳-۱۵	۱۴، ۴/۷/۵	۱
Study Resources Announcement Done and Related To Meeting Lesson	Dr. Ghasemi	Cancer cell and its characteristics	۱۳-۱۵	۱۴، ۴/۷/۱۲	۲
Study Resources Announcement Done and Related To Meeting Lesson	Dr. Ghasemi	Molecular techniques and markers in cancer diagnosis	۱۳-۱۵	۱۹، ۱۴، ۴/۷	۳

Study Resources Announcement Done and Related To Meeting Lesson	Dr. Ghasemi	Metastasis and mechanisms of angiogenesis and invasion	۱۳-۱۵	۲۶ . ۱۴۰۴/۷	۴
Study Resources Announcement Done and Related To Meeting Lesson	Dr. Ghasemi	Cell cycle control, growth regulation, and cancer developmental and developmental genes	۱۳-۱۵	۳ . ۸ . ۱۴۰۴	۵
Study Resources Announcement Done and Related To Meeting Lesson	Dr. Ghasemi	Genetic instability and chromosomal and centromeric abnormalities in cancer	۱۳-۱۵	۱۰ . ۱۴۰۴/۸	۶
Study Resources Announcement Done and Related To Meeting Lesson	Dr. Ghasemi	Structure and function of tumor suppressor genes	۱۳-۱۵	۱۷ . ۱۴۰۴/۸	۷
Study Resources Announcement Done and Related To Meeting Lesson	Dr. Ghasemi	Conventional methods of treating cancers with new genetic methods	۱۳-۱۵	۲۴ . ۱۴۰۴/۸	۸
Study Resources Announcement Done and Related To Meeting Lesson	Doctor Asadollahi	Structure and function of viral and cellular oncogenes	۱۳-۱۵	۹/۳ . ۱۴۰۴	۹
Study Resources Announcement Done and	Doctor Asadullah	Telomerase and its inhibition in cancer	۱۳-۱۵	۹ . ۱۴۰۴ ۱۰	۱۰

Related To Meeting Lesson					
Study Resources Announcement Done and Related To Meeting Lesson	Dr. Asadullah	Mutagenic and carcinogenic processes and their relationship	۱۳-۱۵	۹ . ۱۴ . ۴ ۱۷	۱۱
Study Resources Announcement Done and Related To Meeting Lesson	Dr. Asadollahi	Epigenetics and cancer	۱۳-۱۵	۹ . ۱۴ . ۴ ۲۴	۱۲
Study Resources Announcement Done and Related To Meeting Lesson	Dr. Asadollahi	Genetics of familial cancer syndromes	۱۳-۱۵	۹ . ۱۴ . ۴	۱۳
Study Resources Announcement Done and Related To Meeting Lesson	Dr. Asadollahi	Mitochondrial genetics and cancer	۱۳-۱۵	۸ . ۱۴ . ۴/۹	۱۴
Study Resources Announcement Done and Related To Meeting Lesson	Dr. Asadollahi	Causes of cancer susceptibility in childhood and old age	۱۳-۱۵	۱۵ . ۱۴ . ۴/۹	۱۵
Study Resources Announcement Done and Related To Meeting Lesson	Dr. Asadollahi	Signaling pathways in cancer	۱۳-۱۵	۲۲ . ۱۴ . ۴/۹	۱۶

Study Resources Announcement Done and Related To Meeting Lesson	Doctor Asadollahi	Immunotherapy in cancer	۱۳-۱۵	۲۹ . ۱۴۰۴/۹	۱۷
Preparing for the written exam	Doctor Ghasemi/Dr. Asadollahi	End of semester exam	According to the training program	According to the training program	۱۸

Mid-term exam date: By agreement of students in the first half of the current semester *					
End of semester exam date: According to the educational program *					
:Other important notes for students *					
۱- Timely and active attendance at class meetings ۲- Taking tests ۳- .It is mandatory for students' mobile phones to be turned off ۴- The first semester break sessions will be held on a compensatory basis in .coordination with students and education					
Announcing grades according to the training schedule					