

## Planning and Quality Assurance Affairs

Form (A)

### Course Specifications

#### General Information

Course name	Medical Genetics
Course number	AMSL3323
Faculty	
Department	
Course type	Major Needs
Course level	3
Credit hours (theoretical)	3
Credit hours (practical)	0
Course Prerequisites	

#### Course Objectives

- 1 - The course intends to give basic knowledge about the composition and function of the human genome as well as the importance of genetic factors for origin of diseases, abnormalities and developmental disorders in humans, partly for variation of normal properties.
- 2 - Demonstrate an understanding of the structure of the human genome and function and know and understand basic concepts for the expression of genes
- 3 - Know and have understanding for different genetic factors of importance for the origin of hereditary diseases and for the genetic variation of normal properties
- 4 - Know and be able to use basic genetic concepts and identify Mendelian inheritance patterns

#### Course Contents

- 1 - Introduction 1
- 2 - Introduction to the Human Genome chapter 2
- 3 - The Human Genome: Gene Structure and Function Chapter 3
- 4 - Human Genetic Diversity: Mutation and Polymorphism Chapter 4
- 5 - Principles of Clinical Cytogenetics and Genome Analysis Chapter 5
- 6 - The Chromosomal and Genomic Basis of Disease: Disorders of the Autosomes and Sex Chromosomes Chapter 6
- 7 - Patterns of Single-Gene Inheritance Chapter 7
- 8 - Cancer Genetics and Genomics Chapter 8

#### Teaching and Learning Methods

- 1 - Lecture Notes
- 2 - Power point presentations
- 3 - Video Animations

### Students Assessment

<u>Assessment Method</u>	<u>TIME</u>	<u>MARKS</u>
Midterm Exam 1		25%
Midterm 2		25%
Final Exam	End of semester	50%

### Books and References

Course note	1. Robert L. Nussbaum, Roderick R. McInnes, Huntington F. Willard 2016, Thompson & Thompson Genetics in Medicine, 8th Edition, Elsevier, Philadelphia. 2. Lectures power points and notes
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