

Module title: **Advanced Human Genetics**

Module Code: 2222749

Module Credit: 2

Term: Second Term 1397-98

Lecturer: Dr. M. Kordi Tamandani
Dor_kordi@yahoo.com

Lecturing time: Sat. (7:30-9:30)

Assessments: 30% mid-term exam
50% final exam
20% Seminars

Class attendance: Regular Attending is Important and Each Session Your
Attendance Will be Checked

References:

Human molecular genetics (4th Edition)

Authors: Tom Strachan, Andrew Read

Emery & Rimoin's principles and practice of medical genetics (6th Edition)

Somatic genome manipulation (Advances, Methods, and Applications)

Editors: Li, Xiu-Qing, Donnelly, Danielle J., Jensen,

Thomas G. (Eds.)

Module Subjects:

1st. and 2nd. Week: Organization of the Human Genome (Chapter 9 from Human molecular genetics)

3rd. and 4th. Week: Identifying Human Disease Genes and Susceptibility Factors (Chapter 16 from Emery & Rimoin's principles and practice of medical genetics)

5th. and 6th. Week: Neonatal Screening (Chapter 27 from Emery & Rimoin's principles and practice of medical genetics)

7th. and 8th. Week: Gene Therapy (Chapter 29 from Emery & Rimoin's principles and practice of medical genetics)

9th. and 10th. Week: Hemoglobinopathies and Thalassemias (Chapter 71 from Emery & Rimoin's principles and practice of medical genetics)

11th. and 12th. Week: Amino Acid Metabolism (Chapter 92 from Emery & Rimoin's principles and practice of medical genetics), Mid-term Exam

13th. and 14th. Week: Muscular Dystrophies (Chapter 125 from Emery & Rimoin's principles and practice of medical genetics)

15th. Week: Humans and Animals (The first three chapters from Somatic genome manipulation)

16th. Week: Humans and Animals (The second three chapters from Somatic genome manipulation), Preparation for *Final Term Exam*