



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Medical Biology and Genetics							
Course Code		TIP275		Course Level		First Cycle (Bachelor's Degree)			
ECTS Credit	4	Workload	100 (<i>Hours</i>)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Cells general properties of the cell, the microscopic structure of cells, the cell membrane, Nucleus and genetic material. Introduction to Nucleus, membrane and nucleolus nucleus, the genetic material, Protein Synthesis: DNA replication, tranion, Structural and numerical chromosome disorders, errors that occur during cell division, Mutation: Mutation Definition, Classification and identification of mutations							
Course Content		Hücre Hücrenin genel özellikleri, Hücrenin mikroskopik yapısı, Hücre zarı, Nükleus ve Genetik Materyal: Nükleus, Nükleus zarı ve Nükleolus, Genetik materyale giriş, Protein Sentezi: DNA replikasyonu, Transkripsiyon, Yapısal ve Sayısal Kromozomlar düzensizlikler, Hücre bölünmesi esnasında gerçekleşen hatalar,Mutasyonlar: Mutasyon Tanımı, Mutasyonların Sınıflandırılması ve tanımlanması							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation)					
Name of Lecturer(s)									

Prerequisites & Co-requisites

Equivalent Course	EBL358/HF367
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Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading

1	Alberts B., Johnson A., Lewis J., Raff M., Roberts K., Walter P., "Molecular Biology of the Cell" Garland Science, Fourth Edition (2002)
2	Başaran N. (1994): Tıbbi Genetik. 5. baskı, Bilim Teknik Yayınevi, İSTANBUL

Week	Weekly Detailed Course Contents	
1	Theoretical	Cells general properties of the cell, the microscopic structure of cells, the cell membrane
2	Theoretical	Cells (Continued) cytoplasm and organelles
3	Theoretical	Nucleus and genetic material. Introduction to Nucleus, membrane and nucleolus nucleus, the genetic material
4	Theoretical	Nucleus and Genetic Material (continued): DNA structure, function, RNA structure, function
5	Theoretical	Protein Synthesis: DNA replication, tranion
6	Theoretical	Protein synthesis (continued)
7	Intermediate Exam	Midterm
8	Intermediate Exam	Midterm
9	Theoretical	Chromosomes and chromosome aberrations: Chromosome identification, classification of chromosomes
10	Theoretical	Structural and numerical chromosome disorders, errors that occur during cell division
11	Theoretical	Patterns of Inheritance: Autosomal dominant inheritance Autosomal Recessive Inheritance
12	Theoretical	Inheritance Patterns (continued): X-linked recessive inheritance, X-linked dominant inheritance, multifactorial inheritance
13	Theoretical	Mutation: Mutation Definition, Classification and identification of mutations
14	Theoretical	Prenatal Diagnosis and Genetic Counseling: Prenatal Diagnosis indications, prenatal diagnosis, genetic counseling
15	Theoretical	Evaluation of course
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	2	2	52



Assignment	3	5	2	21
Midterm Examination	1	8	2	10
Final Examination	1	15	2	17
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	Genetic events that occur in cell morphology and physiology learns
2	The material structure of Genetics, Central Dogma step learns
3	Phase of the cell cycle and cell division learns
4	Types of inheritance, inheritance patterns and irregularities can explain the number and structure kromozol
5	Autosomal and gonosomal diseases, gene mutations have learned topics as infertility, mental retardation, gender anomalies, rtekrar in the ebortus and stillbirths, genetic counseling about issues, have knowledge.

Programme Outcomes (Nutrition and Dietetics)

1	Assess, apply and evaluate the accuracy, reliability and validity of basic knowledge and evidence based current scientific developments on nutrition and dietetics.
2	Assess scientifically the energy and nutrients need of individuals and develop nutrition plans and programs for the clients according to the principles of adequate and balanced nutrition and assessment of energy and nutrient requirements
3	Develop food and nutrition plans and policies for the prevention and promotion of healthy lifestyle applying the methods of nutritional assessment for the population.
4	Assess the nutritional status of the patients, evaluate the clinical symptoms, plan and apply individualized medical nutrition therapy for the patients.
5	Evaluate the factors affecting the quality of food consumed by the individuals and populations from production to consumption and implement the legal standards and legislations on food safety and food security.
6	Consider, interpret and apply the basic scientific knowledge on nutrition and dietetics especially have skills on critical thinking, problem solving and decision making and use effectively the appropriate current technologies and computer, demonstrate skills in preparing research manuscripts, project proposals, collecting and verifying data and writing report.
7	Assess, evaluate and interpret the nutritional status of the individuals and population groups using current knowledge, develop preventive measures, apply medical nutrition therapy, demonstrate active participation, teamwork and contributions with national and international stakeholders in health and social areas, in terms of ethical principles.
8	Plan menus in the institutional food service systems depending on the energy and nutrient requirements of target groups in the scope of nutrition and dietetic principles, take care of food safety in all settings from purchase of food to service, apply appropriate service using technological developments.
9	Develop and use effective strategies for the education, counseling and encouragement of individuals and population groups to facilitate behavior change and choose healthy and safety foods, prepare and update the related educational materials.
10	Apply laboratory work on product development, food analysis and related factors effecting food quality and interpret the results and evaluate them according to the legal arrangements.
11	Plan, manage, evaluate, monitor and report researches and programs to educate and increase and improve the knowledge and awareness of individuals and population groups on healthy nutrition during all lifecycle period, and lead such activities, support and take role in the preparation and implementation of national and international food and nutrition plans and policies.
12	Work and perform duties in the scope of occupational responsibilities and ethical principles, understand the importance of lifelong learning, follow the latest developments (innovations) in science, technology and health, demonstrate professional attributes for the enhancement of nutrition and dietetics profession.
13	Use, apply, discuss and share scientific and evidence based knowledge in nutrition and dietetics practice with team and team members, develop and demonstrate effective skills using oral, print, visual methods in communicating and expressing thoughts and ideas, communicate with all stakeholders within ethical principles. Develop and demonstrate effective communications skills using oral, print, visual, electronic and mass media methods
14	Plan, apply, monitor and evaluate individualized medical nutrition therapy within interdisciplinary approaches, considering the sociocultural, economical status of patients in various age groups and also contribute to clinical researches.

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4	L5
P1	2	1	2	2	1
P2	2	1	2	2	1
P3	2	1	2	2	1
P4	2	1	2	3	1
P5	2	2	2	3	2
P6	3	2	1	3	2
P7	3	2	1	3	2



P8	3	2	1	3	3
P9	3	2	1	3	3
P10	3	2	1	1	3
P11	2	3	2	1	3
P12	2	3	2	1	1
P13	1	2	2	1	1
P14	1	3	3	1	1

