

**İSTANBUL UNIVERSITY  
CERRAHPAŞA MEDICAL FACULTY - COURSE PLAN**

**1<sup>st</sup> YEAR**

First Semester

Code	Name of the Course	CR	ECTS
e106	Organic Chemistry and Biomolecules	4	4
e107	Medical Biology	5	5
e111	Behavioral Science	3	3
e112	Basic Biostatistics	4	4
e114	Basic Biophysics	4	4
e116	Patient Care and First Aid	3	3
e117	Computer Science in Medicine	2	2
e101	Turkish I	2	2
e102	Atatürk Revolutions and History I	2	2
e103	Fine Arts or Sports	1	1
<b>Total</b>		<b>30</b>	<b>30</b>

Second Semester

Code	Name of the Course	CR	ECTS
e104	Anatomy of Locomotor System	5	5
e105	Biophysics	4	5
e108	Basic Genetics	4	4
e109	Basic Histology	4	4
e118	Cell Biochemistry	4	4
e119	Basic Physiology	4	4
e120	Atatürk Revolutions and History II	2	2
e121	Turkish II	2	2
<b>Total</b>		<b>29</b>	<b>30</b>

**2<sup>nd</sup> YEAR**

Third Semester

Code	Name of the Course	CR	ECTS
e208	General Microbiology	5	5
e210	Basic Anatomy	9	9
e211	System Physiology	6	6
e212	Special Histology	5	5
e213	Metabolic Ways in Biochemistry	4	4
e214	Fine Arts or Sports	1	1
<b>Total</b>		<b>30</b>	<b>30</b>

Fourth Semester

Code	Name of the Course	CR	ECTS
e201	Medical Parasitology	5	5
e215	Topographic Anatomy and Neuro Anatomy	9	9
e216	Embriology	3	3
e217	Tissue and Genebiochemistry	6	6
e218	Control Mechanisms of Physiology	7	7
<b>Total</b>		<b>30</b>	<b>30</b>

**3<sup>rd</sup> YEAR**

Fifth Semester

Code	Name of the Course	CR	ECTS
e303	Introduction to Internal Medicine	10	10
e304	Introduction to Surgery	5	5
e309	Clinical Microbiology	7	7
e310	Immunology	3	3
e315	Basic General Pathology	5	5
<b>Total</b>		<b>30</b>	<b>30</b>

Sixth Semester

Code	Name of the Course	CR	ECTS
e301	Basic Pharmacology	4	4
e305	Introduction to Gynecology and Obstetrics	5	5
e306	Introduction to Pediatrics	7	7
e313	General Surgery	2	2
e314	Internal Medicine 1	4	4
e316	Medical History and Deontology	2	2
e317	Specific System Pathology 1	6	6
<b>Total</b>		<b>30</b>	<b>30</b>

## 4<sup>th</sup> YEAR

### Seventh Semester

Code	Name of the Course	CR	ECTS
e477	Internal Medicine 2	2	2
e478	Spesific System Pathology 2	4	4
e479	Clinical Pharmacology 1	3	3
e451	General Surgery	1,5	6
e453	Clinical Neurosurgery	1	1
e455	Gynecology and Obstetrics	7	7
e457	Ear Nose and Throath Surgery	3,5	3,5
e459	Ophtalmology	3,5	3,5
e461	Orthopedics and Traumatology	3	3
e463	Physical Therapy and Rehabilitation	3	3
e465	Urology	4	4
e467	Psychiatry	4,5	3,5
e469	Thorasic and Cardiovascular Surgery	2	2
e471	Plastic, Reconstructive and Aesthetic Surgery	2	2
e473	Aneshesiology and Reanimation	2	2
e476	Radiodiagnostics	1,5	1,5
<b>Total</b>		<b>47,5</b>	<b>51</b>

### Eighth Semester

Code	Name of the Course	CR	ECTS
e484	Clinical Pharmacology 2	4	4
e486	Clinical Anathomy	2	2
e488	Cardiology	1	1
e490	Internal Medicine 3	2	2
e452	General Surgery	1,5	6
e454	Clinical Neurosurgery	1	1
e456	Gynecology and Obstetrics	7	7
e458	Ear Nose and Throath Surgery	3,5	3,5
e460	Ophtalmology	3,5	3,5
e462	Orthopedics and Traumatology	3	3
e464	Physical Therapy and Rehabilitation	3	3
e466	Urology	4	4
e468	Psychiatry	4,5	3,5
e470	Thorasic and Cardiovascular Surgery	2	2
e472	Plastic, Reconstructive and Aesthetic Surgery	2	2
e474	Aneshesiology and Reanimation	2	2
e479	Radiodiagnostics	1,5	1,5
<b>Total</b>		<b>47,5</b>	<b>51</b>

## 5<sup>th</sup> YEAR

### Ninth Semester

Code	Name of the Course	CR	ECTS
e551	Basic Public Health	3	3
e553	Oncology	4	4
e555	Internal Medicine	12	12
e557	Social Medicine	1	1
e559	Cardiology	3	3
e561	Nuclear Medicine	1	1
e563	Pediatrics	10	10
e567	Pediatric Surgery	3	3
e569	Radiation Oncology	2	2
e571	Dermatology	3	3
e573	Pulmonary Medicine	3	3
e575	Neurology	2,5	2,5
e577	Forensic Medicine	3,5	3,5

### Tenth Semester

Code	Name of the Course	CR	ECTS
e552	Public Health	4	4
e554	Clinical Biochemistry	2	2
e556	Clinical Biostatistics	3	3
e558	Internal Medicine	12	12
e560	Social Medicine	1	1
e562	Cardiology	3	3
e564	Nuclear Medicine	1	1
e566	Pediatrics	10	10
e568	Pediatric Surgery	3	3
e570	Radiation Oncology	2	2
e572	Dermatology	3	3
e574	Pulmonary Medicine	3	3
e576	Neurology	2,5	2,5

<b>Total</b>		<b>51</b>	<b>51</b>

e578	Forensic Medicine	3,5	3,5
<b>Total</b>		<b>53</b>	<b>53</b>

## 6<sup>th</sup> YEAR

Eleventh Semester

Code	Name of the Course	CR	ECTS
e608	Internal Medicine		15
e609	Pediatrics		9
e610	Gynecology and Obstetrics		9
e611	Surgery		9
e612	Public Health		9
e613	Psychiatry		3
e616	Neurology		3
e614	Selective (extra 2 weeks in same clinics)		2
e615	Medical Ethics		1
<b>Total</b>			<b>60</b>

Twelfth Semester

Code	Name of the Course	CR	ECTS
e608	Internal Medicine		15
e609	Pediatrics		9
e610	Gynecology and Obstetrics		9
e611	Surgery		9
e612	Public Health		9
e613	Psychiatry		3
e616	Neurology		3
e614	Selective (extra 2 weeks in same clinics)		2
e615	Medical Ethics		1
<b>Total</b>			<b>60</b>

**İSTANBUL UNIVERSITY  
CERRAHPAŞA FACULTY OF MEDICINE  
ECTS COURSE DESCRIPTIONS**

**1. YEAR  
PRECLINICAL UNIT**

**1. SEMESTER (30 ECTS Credits)**

**Organic Chemistry and Biomolecules Academics Advertisement**

<b>NAME of the COURSE: ORGANIC CHEMISTRY AND BIOMOLECULES</b>			Course Code: e106
ECTS Credits: 4	Semester: 1 <sup>st</sup>	Undergraduate	Required
Hours: 56	Lectures: 2hours/week  hour/week	Tutorials: Course: 2hours/2week Free work and seminary 1	Language of the Course: English
Contact: Prof. Dr. Orkide DONMA, Prof. Dr. Gülden BURÇAK, Prof. Dr. Arzu SEVEN			

**Aims and Objectives:**

To introduce some fundamental concepts of organic chemistry, to introduce the chemistry and function of the naturally occurring compounds of carbohydrates, to describe the structures and functions of certain lipid components of human tissues, to describe the classification, structures, chemical nature and functions of lipoproteins, to introduce the structure and function of proteins and to describe the relation between them, to define purines, pyrimidines, nucleosides and nucleotides, to describe the structural formulae of the above stated molecules, to describe the structure of DNA and RNA, to understand the role of nucleotide analogs in clinical medicine.

**Course Contents:**

Molecular structure and typical functional groups, major features of hydrocarbons, alcohols, ethers, amines, sulphides, aldehydes, ketones, carboxylic acids, esters, amides, acid halides, acid anhydrides, the clinical importance of heterocyclics, isoprenoids, steroids, alkaloids, polymers and macromolecules. The structures and functions of glucose and the other important monosaccharides, disaccharides, polysaccharides, the reactions of carbohydrates, complex carbohydrates. The classification of lipid compounds, fatty acids, triglycerides, phospholipids, sphingolipids, glycolipids sterols, lipid peroxidation. Chemical nature of lipoproteins, plasma lipid transport, the basic lipoprotein molecules, apolipoproteins, atherogenic lipoproteins and apolipoproteins. Amino Acids; L- $\alpha$ -amino acids present in proteins, additional amino acids in specific proteins, properties of amino acids: chemical reactions of amino acids, peptide bond formation. Characteristics of the peptide bond and peptides, methods for determination of the primary structure of peptides and proteins, biomedical importance of peptides as, hormones, neurotransmitters/neuromodulators, the secondary, tertiary and quaternary structures of proteins, the forces that stabilize these structures, denaturation/renaturation, molecular chaperons, representative proteins with unique structures that perform specific biologic functions: collagen, albumin, myoglobin, hemoglobin, the knowledge of immense range of biological functions carried out by proteins: enzymes, immunoglobulins, transport proteins, hormones, structural proteins, assemblies of proteins that carry out muscle contraction and enable cell motility, cytoskeletal proteins, purine and pyrimidine structure, the major purine and pyrimidine bases, the structure of ribonucleosides and rib nucleotides, the structural and functional properties of nucleotides and nucleic acids to review their role in clinical medicine.

**Assessment Methods:**

Courses 20%, Midterm 20%, Final Exam 60%.

The curve system is used in the evaluation of examination results.

**Prerequisite/Recommended:**

For the courses preliminary study required.

**Text Book/Recommended Reading:**

- Morrison RT, Boyd RN (eds.), Organic Chemistry. Fourth edition. Allyn & Bacon, Inc., Boston, 1983.
- Rawn JD(ed.), Biochemistry. Carolina Biological Supply Company, North Carolina, 1989.

- Mathews CK, Van Holde KE (ed.), Biochemistry. The Benjamin / Cummings Publishing Company, Inc. California, 1990.
- Nelson DL, Cox MM (eds.), Lehninger Principles of Biochemistry, Fourth ed., WH Freeman & Company, New York, 2005.
- Murray RK, Granner DL, Mayes PA, Rodwell VW (eds.), Harpers Biochemistry, Twenty-sixth ed., Mc Graw-Hill Companies, USA, 2005.
- Champe PC, Harvey RA, Ferrier DR (eds.) Lippincott's Biochemistry, 3<sup>rd</sup> ed., A Wolters Kluwer Company, Williams and Wilkins, Philadelphia, 2005.

## Medical Biology Academicals Advertisement

NAME of the COURSE: <b>MEDICAL BIOLOGY</b>			Course Code: e107
ECTS Credits: 5	Semester: 1 <sup>st</sup>	Undergraduate	Required
Hours: 70	Lectures: 3 hours/week  1hour/week	Tutorials: Course: 2 hours/2weeks Free work and seminary:	Language of the Course: English
Contact: Prof. Dr. Turgut ULUTİN, Prof. Dr. Selma YILMAZER, Prof. Dr. Melek ÖZTÜRK, Prof. Dr. Gönül KANIGÜR, Prof. Dr. Müjgan CENGİZ, Assoc. Prof. Dr. Sema BOLKENT.			

### Aims and Objectives:

The teaching program is focused on knowledge of aspects of molecular biology necessary for further study of specialized medical branches. The primary goals of medical biology are to provide basic instruction on the structure and function of living organisms at the cellular and subcellular level and practical training in basic techniques used in the research laboratory. The student will be taught to search information, how to acquire and how to use the information found and how to solve scientific problems.

The laboratory component will train the student in the use of scientific investigation skills, in measurement, and in the use of biological equipment.

### Course Contents:

Introduction, examination methods of cell; cell culture, hybrid cells, microscopic examination methods of cell, application of microsurgical procedures to the living cells, fractionation of cells and analysis of their molecules, prokaryotic and eukaryotic cells, the mitochondrion, mitochondrial DNA and inheritance, structure, function and biosynthesis of ribosome, structure and function of the endoplasmic reticulum, structure and function of cellular membranes membrane lipids, proteins, carbohydrates, cell-cell recognition, Mhc molecules and blood groups, molecular mechanisms of protein synthesis in endoplasmic reticulum the golgi complex and protein sorting, lysosomes and lysosomal diseases, peroxisome, centriole, specializations of the cell surface: microvillus, cilia and flagella, mechanisms of ciliary motility cell-cell junctions, cell to cell communication and gap junctions, cell adhesion molecules, basal laminae, extracellular matrix and its proteases, nucleus, nuclear envelope, nuclear pores, transport through the nuclear envelope, the fine structure of chromatin, active and inactive chromatin, the nucleolus, nuclear matrix, cytoskeleton, microtubules and intracellular transport, cytoskeleton, microfilaments and intermediate filaments, phagocytosis, pinocytosis, receptor mediated endocytosis, cell signalling, signal transmission with cell surfaces receptors and intracellular receptors molecular basis of cell aging, cell death (apoptosis), evolution of cell.

### Assessment Methods:

Courses 10%, Midterm 30%, Final Exam 60%

### Prerequisite:

- 1) 70% attendances of the lectures is required.
- 2) For the entrance of the final exam 8 of 10 courses must be attended.
- 3) Final exam must over 50%.

### Recommended:

For the courses preliminary study required.

### Text Book/Recommended Readings:

- Essential Cell Biology. Alberts B, Bray D, Hopkin K, et al. Garland Science, 2<sup>nd</sup> ed. 2004.

## Behavioural Science Academics Advertisement

NAME of the COURSE: <b>BEHAVIOURAL SCIENCE</b>			Course Code: e111
ECTS Credits: 3	Semester: 1 <sup>st</sup>	Undergraduate:	Required:
Hours: 42	Lectures: 3hours/week	Tutorials:	Language of the Course: English
Contact: Prof. Dr. Ömer TUNCER, Prof. Dr. Müfit UĞUR, Prof. Dr. Mine ÖZMEN, Prof. Dr. Kerem DOKSAT,			

### **Aims and Objectives:**

The aim of these lectures is to give better understanding about the social environment, biological environment of the patient. Also in these lectures the students are thought for learning about the cognitive functions and the different kinds of behaviours. Some mechanisms for coping with difficult conditions are also thought and the students are prepared for future psychiatry lectures.

### **Course Contents:**

Man and his environment, body and mind relations, classification of psychiatric disorders, introduction to psychoses, psychological development, pathologies related to psychological level, perception, pathologies related to perception, consciousness and attention, altered states of consciousness and attention, emotion, pathologies related to emotions, motivation and drive, pathological aspects of motivations and drive.

### **Assessment Methods:**

During the semester the students are given midterm for once. At the end of the semester the students take a final examination. Midterm 40%, Final Exam 60%

### **Prerequisite/Recommended:**

Final exam must over 50%.

### **Text Book/Recommended Readings:**

- American Psychiatric Association: DSMIII. Diagnostic and statistical manual of mental disorders. 3. Edit. American Psychiatric Association. Washington DC.1980.
- Atkinson, R. Atkinson C., Hilgard, E.: Introduction to Psychology, Harcourt Brace Jovanovich Inc. San Diego, 1980.
- Kaplan, Sadock. Synopsis of Psychiatry, Behavioural Sciences/Clinical Psychiatry 8. Edit. Mass Publishing Co. Egypt. 1998.

## Basic Biostatistics Academicals Advertisement

NAME of the COURSE: <b>BASIC BIOSTATISTICS</b>			Course Code: e112
ECTS Credits: 4	Semester: 1 <sup>st</sup>	Undergraduate	Required
Hours: 56	Lectures: 2hours/week  1hour/week	Tutorials: Course: 2 hours/2 weeks Free work and seminary:	Language of the Course: English
Contact: Prof. Dr. Ahmet DİRİCAN			

### **Aims and Objectives:**

Biostatistics is the field of study concerned with the collection, organization and summarization of biological and medical data and drawing of inferences, evaluation of conclusions, presentation of results, about this data.

The aims and objectives of the biostatistics course to build basic skills to evaluate the theoretical knowledge and their application to the design, analysis and interpretation of biological and medical studies.

### **Course Contents:**

History of statistics and biostatistics, basic concepts of biostatistics, introduction to medical research, study design in medical research, causality and the meaning of statistical inference, collection of data, measurements and scales, quantitative variables, qualitative variables, population and sample, summarization and presentation of data, measures of central tendency and variation, probability and probability distributions, the normal distribution, the standard normal (Z) distribution, hypothesis testing and statistical inference student's t test, and paired t test procedures, non-parametric statistics, Mann-Whitney U, Wilcoxon matched-pairs signed-ranks test, chi-square distribution, chi-square test, fisher's exact test, relationships among the numerical characteristics, correlation and regression.

### **Assessment Methods:**

Courses 20%, Midterm 20%, Final Exam 60%

### **Prerequisite:**

- 1) 70% attendances of the lectures is required.
- 2) For the entrance of the final exam 8 of 10 courses must be completed.
- 3) Final exam must over 50%.

### **Recommended:**

For the courses preliminary study required.

### **Text Book/Recommended Readings:**

- Basic and Clinical Biostatistics: Beth-Dawson Saunders, Robert G. Trapp. Lange medical Book Series, International Edition (Third), 2001.
- Clinical Epidemiology and Biostatistics: Rebecca G. Knapp, M. Clinton Miller III. The National Medical Series for Independent Study, Williams & Wilkins Book Company, 1992.
- Essentials of Biostatistics: Robert C. Elston, William D. Johnson. Second Edition. Davis Company, USA, 1994.

## Basic Biophysics Academicals Advertisement

NAME of the COURSE: <b>BASIC BIOPHYSICS</b>			Course Code: e114
ECTS Credits: 4	Semester: 1 <sup>st</sup>	Undergraduate	Required
Hours: 56	Lectures: 2hours/week  1hour/week	Tutorials: Course: 2 hours/2 weeks Free work and seminary:	Language of the Course: English
Contact: Prof. Dr. Mehmet Can AKYOLCU, Prof. Dr. Mustafa Tunaya KALKAN			

### Aims and Objectives:

In general the lack of the consciousness of medical school students related to the physical, chemical and physicochemical bases of the physiological mechanisms and machinery of the living structures is the most important problem. The objective and aim of biophysics is to get rid of the inconvenience of the problem that described above by training the students, how to interrogate the fundamentals of the static and dynamic interrelations between atoms, molecules, macromolecules, supramolecules, cells, tissues organs as a whole. Giving the scientific approaches to the students instead of them to memorize a subject and teaching them how to deal with the problems those never met before at molecular level and handle them the idea that all incidents in living structures are based on physiochemical phenomena instead of random and fate. Help students to gain new perspectives and approaches in dealing with problems those still waiting to be solved in medicine.

### Course Contents:

Characteristics and Distribution of Body Fluids, General Content, Determination Methods, Dispersion Types of Matters in Body Fluids, Biophysical Characteristics of Living Structures: Viscosity and Surface Tension, Acid-Base Equilibrium – I: Description of Ph and Measurement, Disassociation of Pure Water, Normal Reaction of Body, Henderson-Hasselbach Equilibrium, Control of Acid-Base Balance, Chemical Buffer Systems and Physiological Control Systems, Membranes I: Organization of Cell Membrane, Transport Through in Membrane, Function of Circulation System and Hydrostatic Factor in the System, Hemodynamic: Basic Concepts, Heart Action and Power, Ultrasound and Medical Applications, Laser and Medical Applications, Interaction of Molecules: Macromolecule Structure and Shape, Water, Relation Between Hormone and Receptor, Communication Between Cells, the Mechanisms, Which Chemical Messengers Act in, Radiation Biophysics: Medical Application of Radionucleids, Radiation Interaction Between Matters, Nuclear Radiation Counters and Statistics.

### Assessment Methods:

Courses 10%, Midterm 30%, Final Exam 60%

### Prerequisite:

- 1) 70% attendances of the lectures is required.
- 2) For the entrance of the final exam 5 of 9 courses must be completed.
- 3) Final exam must over 50%.

### Recommended:

For the courses preliminary study required.

### Text Book/Recommended Readings:

- Walter Hope, Wolfgang Lohmann, Hubert Markl, Hubert Ziegler: Biophysics. Springer Verlag Heidelberg New York Tokyo, 1983.
- Basic Biophysics Experiment Instruction Manuel. Cerrahpaşa Medical Faculty Department of Biophysics, 2003.

## First Aid & Patient Care Academicals Advertisement

NAME of the COURSE: <b>FIRST AID &amp; PATIENT CARE</b>		Course Code: e116
ECTS Credits: 3	Semester: 1 <sup>st</sup>	Undergraduate
Hours: 42	Lectures: 1hour/week	Tutorials: Skill station: 2 hours/week Free work and seminary:
Contact: Assoc. Prof. Dr. Oktay DEMIRKIRAN, Prof. Dr. Fatis ALTINTAŞ, Dr. Tuğhan UTKU, Dr. Lale YÜCEYAR, Dr. Seval ÜRKMEZ		Language of the Course: English

### Aims and Objectives:

BLS is fundamental to all resuscitation; the course is suitable also for laypersons. Our aim is, to teach the techniques of CPR to a wide range of disciplines.

The course last two months and consists of interactive lectures and demonstrations of the skills required to be a good BLS and AED provider. One of the most important principles of first aid is to obtain medical assistance in all cases of serious injury. Students are able to take charge of a situation, keep calm while working under pressure, and organize others to do likewise. Every student could be able to give effective assistance until an injured person can receive professional medical care.

### Course Contents:

First aid introduction & procedures, Basic anatomy & physiology, Vital signs assessment, Basic Life Support, Airway obstruction, Recovery position, Automated External Defibrillation, Venous Access, Injection Techniques, Paediatric Basic Life Support, Airway Management, Bleeding, Shock, Burns, Near Drowning, Positioning, Myocardial Infarction, Blood pressure measurement

### Assessment Methods:

Midterm 40%, Final Exam 60%

### Prerequisite:

- 1) 70% attendances of the lectures is required
- 2) For the entrance of the final exam all skill stations must be complete
- 3) Final exam must be over 50%

### Text Book/Recommended Readings:

- ERC BLS provider course. European Resuscitation Council October, 2002.
- ERC AED provider course. European Resuscitation Council October, 2002.
- ERC Advanced Life Support Course Manual. European Resuscitation Council 4th edition, March, 2001.
- European Paediatric Life Support Course. European Resuscitation Council. Manual - 1st edition, June 2003.

## Computer Science in Medicine Academics Advertisement

NAME of the COURSE: <b>COMPUTER SCIENCE IN MEDICINE</b>			Course Code: e117
ECTS Credits: 2	Semester: 1 <sup>st</sup>	Undergraduate	Required
Hours: 28	Lectures:	Tutorials: Courses: 2 hours/week	Language of the Course: English
Contact: Prof. Dr. Ahmet DİRİCAN			

### **Aims and Objectives:**

The course of Computer Sciences in Medical is to introduce the basic principles of computer system. The objective of this course presentation of the fundamentals of the hardware and the software with special applications. These are describe a microcomputers, Understand the type of memory in a microcomputers, Describe how a microcomputers processes data, and basic concepts of DOS and Windows applications, etc.

### **Course Contents:**

Introduction to basic concepts of computers technology, the basic capabilities of computers, hardware, arithmetical operators, the operating system and system programs (dos), windows using of spreadsheet and word processor packages (excel, word, etc).

### **Assessment Methods:**

Midterm 40%, Final Exam 60%

### **Prerequisite:**

- 1) 70% attendances of the lectures is required.
- 2) Final exam must over 50%.

### **Recommended:**

For the courses preliminary study required.

### **Text Book / Recommended Readings:**

- Modern Microcomputers: Fritz J. Erickson, John A. Vonk, Irwin Book Team, Second Edition, USA, 1996.
- Computer Organization and Programming: C.William Gear, Mc Graw-Hill Book Company, International (Fourth) Edition, USA, 1985.
- Windows 95: Timoty J. O'Leary and Linda I. O'Leary. Mc Graw-Hill Book Company, International Edition, 1996.

NAME of the COURSE: <b>TURKISH I</b>			Course Code: e101
ECTS Credits: 2	Semester: 1 <sup>st</sup>	Undergraduate	Required
Hours: 28	Lectures: 2 Hours/week	Tutorials:	Language of the Course: Turkish
Contact: Lecturer Rıza Gerçek			

NAME of the COURSE: <b>ATATÜRK REVOLUTIONS and HISTORY I</b>			Course Code: e102
ECTS Credits: 2	Semester: 1 <sup>st</sup>	Undergraduate	Required
Hours: 28	Lectures: 2 hours/week	Tutorials:	Language of the Course: Turkish
Contact: Assistant. Prof. Dr. Cevahir KAYAM			

NAME of the COURSE: <b>FINE ARTS or SPORTS</b>			Course Code: e103
ECTS Credits: 1	Semester: 1 <sup>st</sup>	Undergraduate	Required
Hours: 14	Lectures:	Tutorials: Courses: 1 hours/week	Language of the Course: Turkish
Contact: Lecturer Feridun ÖZGÜMÜŞ / Lecturer Çiğdem AKDEMİR			

## 2. SEMESTER (30 ECTS Credits)

### Anatomy of Locomotor System Academicals Advertisement

NAME of the COURSE: <b>ANATOMY OF LOCOMOTOR SYSTEM</b>			Course Code: e104
ECTS Credits: 5	Semester: 2 <sup>nd</sup>	Undergraduate	Required
Hours: 70	Lectures: 2hours/week  1hour/week	Tutorials: Course: 2 hours/ week Free work and seminary:	Language of the Course: English
Contact: Assoc. Prof. Dr. Tania MARUR			

**Aims and Objectives:**

Gross anatomy of the locomotor system of the human body with its function and clinical aspects. To teach the basic knowledge of the bones, joints and muscles.

**Course Contents:**

Basic information, terminology, locomotor system, bones of upper and lower limb, bones of the head, viscerocranium, neurocranium, bones of axial skeleton (vertebral column, ribs, sternum), pelvis, measurements, articulation of bones, articulations of shoulder girdle and shoulder joint, elbow, wrist and hand joints, articulations of pelvic girdle and hip joint, knee joint, ankle and foot joints, arches of the foot, articulations of the head, articulations of the trunk, thorax, muscles (fascia, bursa, aponeurosis), muscles of forearm and hand, muscles of gluteal region, muscles of thigh (anterior, posterior and medial groups), muscles of leg (anterior, posterior and lateral groups) and muscles of foot, muscles of head, muscles of neck, muscles of back, muscles of the thoracic and abdominal wall.

**Assessment Methods:**

Midterm 40%, Final Exam 60%

**Prerequisite:**

- 1) 70% attendances of the lectures is required.
- 2) For the entrance of the final exam 30% of courses must be completed.
- 3) Final exam must over 50%.

**Recommended:**

For the courses preliminary study required.

**Text Book/Recommended Readings:**

- Snell R.S. Clinical anatomy for medical students, 6<sup>th</sup> ed. Lippincot –Raven, Philadelphia, 2000.
- Putz R, Pabst R. Sobotta atlas of Human Anatomy Vol 1,2. Urban & Schwarzenberg, Munich, 1994.
- Moore KL, Dalley AF. Clinically Oriented Anatomy. 4<sup>th</sup> ed. Lippincott Williams & Wilkins, Baltimore, 1999.

## Biophysics Academicals Advertisement

NAME of the COURSE: <b>BIOPHYSICS</b>			Course Code: e105
ECTS Credits: 5	Semester: 2 <sup>nd</sup>	Undergraduate	Required
Hours: 70	Lectures: 2 hours/week	Tutorials: Course: 2 hour/2 weeks Free work and seminary: 2 hour/week	Language of the Course: English
Contact: Prof. Dr. Mehmet Can AKYOLCU, Prof. Dr. Mustafa Tunaya KALKAN			

### Aims and Objectives:

In general the lack of the consciousness of medical school students related to the physical, chemical and physicochemical bases of the physiological mechanisms and machinery of the living structures is the most important problem. The objective and aim of biophysics is to get rid of the inconvenience of the problem that described above by training the students, how to interrogate the fundamentals of the static and dynamic interrelations between atoms, molecules, macromolecules, supramolecules, cells, tissues organs as a whole. Giving the scientific approaches to the students instead of them to memorize a subject and teaching them how to deal with the problems those never met before at molecular level and handle them the idea that all incidents in living structures are based on physiochemical phenomena instead of random and fate. Help students to gain new perspectives and approaches in dealing with problems those still waiting to be solved in medicine.

### Course Contents:

Effects of Electrical Currents on Tissue, Characteristics of Currents According their Frequency and Intensity, Chronaxie, Reobase, Excitation of DC on Human, Acid-Base Equilibrium Disorders, Acid-Base Equilibrium Parameters, Blood Gasses Measurement Methods, Membrane Potential, Neurobiophysics, Action Potential, Ion Channels, Voltage Clamps, Communication Between Cells, Cybernetics, Hemoreology, Blood Viscosity, Fluidity Characteristics And Deformability of Blood, General Aspects of Immunobiophysics, Reorganisation of DNA, Radiosensitivity, Reaction of Cells, Effects of Radiation on Human, Radiopharmaceutucals and their Biological Behaviours, Tracing Techniques by Radionucleids, SPECT, PET, Biomechanics, Tissue Mechanics.

### Assessment Methods:

Courses 10%, Midterm 30%, Final Exam 60%

### Prerequisite:

- 1) 70% attendances of the lectures is required.
- 2) For the entrance of the final exam 5 of 9 courses must be completed.
- 3) Final exam must over 50%.

### Recommended:

For the courses preliminary study required.

### Text Book / Recommended Readings:

- Biophysics. Walter Hope, Wolfgang Lohmann, Hubert Markl, Hubert Ziegler. Springer Verlag Heidelberg New-York Tokyo, 1983.
- Biophysics Experiment Instruction Manuel, Cerrahpasa Medical Faculty Department of Biophysics, 2003.

## Basic Genetics Academics Advertisement

NAME of the COURSE: <b>BASIC GENETICS</b>			Course Code: e108
ECTS Credits: 4	Semester: 2 <sup>nd</sup>	Undergraduate	Required
Hours: 56	Lectures: 2hours/week	Tutorials: Course: 2 hours/ 2 weeks Free work and seminary: 1 hour	Language of the Course: English
Contact: Prof. Dr. Turgut ULUTİN, Prof. Dr. Selma YILMAZER, Prof. Dr. Melek ÖZTÜRK, Prof. Dr. Gönül KANIGÜR, Prof. Dr. Adnan YÜKSEL, Prof. Dr. Mújgan CENGİZ, Assoc. Prof. Dr. Sema BOLKENT, Assoc. Prof. Dr. Ayhan DEVİREN.			

### Aims and Objectives:

To provide basic instruction on genetic structures and functions from the molecular level to the population level and on methods used in genetics, and to review the role of genetics in a number of medicine. The student will also obtain gain sufficient understanding of human genetics so that they can appreciate the genetic basis of a large fraction of human diseases, and the Importance of genetic considerations in the prevention and treatment of disease he laboratory component will train the student in the use of scientific investigation skills, in measurement, and in the use of biological equipment. Help students to gain new perspectives and approaches in dealing with problems those still waiting to be solved in medicine.

### Course Contents:

Introduction, gene structure, organization of genomes, gene families, pseudogenes, repetitive DNA sequences, chromosomes and higher order chromatin structure, centromers, telomers, DNA replication, DNA damage and repair, the nature of mutations, principles of recombinant DNA technology, genetic engineering and human genome project, transcription, control of the gene expression, protein synthesis and the genetic code, cell cycle, mitosis, molecular genetics of the cell cycle control systems, cell cycle regulation and cancer cells, proto-oncogenes, oncogenes and tumour suppressor genes, meiosis and genetic recombination, molecular and biochemical basis of genetic disorders, treatment of genetic diseases and gene therapy, mendelian inheritance (definitions), autosomal inheritance, recessive inheritance, x linked inheritance, non mendelian inheritance, multifactorial inheritance, chromosomal abnormalities, chromosomal abnormalities, prenatal diagnosis genetic counselling.

### Assessment Methods:

Courses 10%, Midterm 30%, Final Exam 60%

### Prerequisite:

- 1) 70% attendances of the lectures is required.
- 2) For the entrance of the final exam 8 of 10 courses must be completed.
- 3) Final exam must over 50%.

### Recommended:

For the courses preliminary study required.

### Recommended Readings:

- Molecular Biology of the Gene. Watson J., Baker T., Bell S., et al.,
- CSHL Press. San Francisco, 5 th ed. 2004.

## Basic Histology Academicals Advertisement

NAME of the COURSE: <b>BASIC HISTOLOGY</b>			Course Code: e109
ECTS Credits: 4	Semester: 2 <sup>nd</sup>	Undergraduate	Required
Hours: 56	Lectures: 2hours/week  1hour/week	Tutorials: Course: 2 hours/2 weeks Free work and seminary:	Language of the Course: English
Contact: Prof. Dr. Oktay ARDA			

### **Aims and Objectives:**

The basic facts and interpretation of microscopic anatomy. Understanding how structure and function are integrated in the molecules, cells, tissues, and organs of a living creature, particularly human. Prepare the student to understand pathology and pathophysiology for future medical education. Give an accurate, up-to-date description of the structure and function of cells and their products and a brief introduction into the molecular biology of the cell, Description of the four basic tissues of the body, emphasizing how cells become specialized to perform the specific functions of these tissues.

### **Course Contents:**

Histology & Its Methods of Study, Epithelial Tissue, Connective Tissue, Blood Cells, Hematopoiesis, Cartilage, Bone, Muscle Tissue, Nerve Tissue & the Nervous System,

### **Assessment Methods:**

Midterm: Courses 10%, Lectures 90%

Final Exam: Courses 20%, Lectures 80%

Midterm 40%, Final Exam 60%

### **Prerequisite:**

- 1) 70% attendances of the lectures is required.
- 2) For the entrance of the final exam 4 of 5 courses must be completed.
- 3) Final exam must over 50%.

### **Recommended:**

For the courses preliminary study required.

### **Text Book/Recommended Readings:**

- Basic Histology, Text & Atlas: Luiz Carlos Junqueira, José Carneiro 10th Edition, McGraw-Hill Companies, 2002.
- Histology A Text and Atlas: Michael H. Ross Gordon I. Kaye Wojciech Pawlina. 4TH Edition, Williams & Wilkins, 2002.
- A Textbook Of Histology: W. Bloom, D. W. Fawcett. 10<sup>th</sup> edition, W. B. Saunders Com., 1972
- Histology. A Text and Atlas: J.A.G. Rhodin, Oxford University Press, 1974.

## Cell Biochemistry Academicals Advertisement

NAME of the COURSE: <b>CELL BIOCHEMISTRY</b>			Course Code: e118
ECTS Credits: 4	Semester: 2 <sup>nd</sup>	Undergraduate	Required
Hours: 56	Lectures: 2hours/week	Tutorials: Course: 2hours/2week Free work and seminary: 1 hour/week	Language of the Course: English
Contact: Prof. Dr. Gülden BURÇAK, Prof. Dr. Orkide DONMA, Prof. Dr. Arzu SEVEN			

### Aims and Objectives:

To introduce the functional importance of enzymes in maintenance of metabolic homeostasis, to introduce the structure of enzymes, to describe at a molecular level the specificity, efficiency, action mechanisms, kinetics, types of inhibition, regulatory mechanisms, isoenzymes and their clinical significance. To introduce the vitamins, macro- and microelements and emphasize their importance in human health, to describe the structure, organization, properties and functions of membranes, the transport processes, the role of membranes in signal transduction, to introduce the principles of bioenergetics, to introduce the means by which energy is extracted, channeled and consumed in living cells.

### Course Contents:

General properties of enzymes, classification, simple enzymes and apoenzymes needing cofactors (coenzymes, prosthetic groups and activators), substrate specificity and high catalytic efficiency. Induced conformational fit. Michaelis-Menten kinetics, the effects of enzyme concentration, substrate concentration, temperature and pH on enzymatic reaction rate. Reversible and irreversible inhibition. Competitive, noncompetitive and uncompetitive types of inhibition. General acid-base catalysis, covalent catalysis, metal ion catalysis. Regulation of enzyme activity, metabolic homeostasis, compartmentalization of enzymatic processes, negative and positive feedback mechanisms, rate limiting enzymes, induction/repression, covalent regulation allosteric regulation, disease-related regulatory dysfunctions. The structure, distribution, function and diagnostic use of isoenzymes. The clinical significance of alterations in enzyme activity. The chemistry, properties, absorption, transport, storage, delivery of vitamins, vitamins as coenzymes or prosthetic groups, dietary sources of vitamins, the essential functions of vitamins. Clinical symptoms of dietary deficiency and toxicity states, vitamin-like nutrients. Macro- and microelements. The absorption, transport, storage, excretion and the biochemical functions of elements. The deficiency and the toxicity states. The functions of cellular organelles. The lipids, proteins and carbohydrates as structural components and their organisation in membranes. The properties and functions of membranes. The simple diffusion, facilitated diffusion and primary/secondary active transport mechanisms, their characteristics; ABC transport proteins, Group translocation. The transport proteins of the inner mitochondrial membrane, shuttle mechanisms. Endocytosis, receptor-mediated endocytosis, exocytosis. The receptors and the functions of membranes in signal transduction. The examples for diseases related with membranes. The general principles of bioenergetics. Chemical equilibrium and free energy. The coupling of endergonic and catabolic processes, the structures of high-energy compounds and their roles in energy capture and transfer. The energy status of the cell. The caloric values of nutrients.

### Assessment Methods:

Courses 20%, Midterm 20%, Final Exam 60%.

### Prerequisite/Recommended:

For the courses preliminary study required.

### Text Book / Recommended Reading:

- Rawn JD. Biochemistry. Carolina Biological Supply Company, North Carolina, 1989.
- Mathews CK, Van Holde KE (eds.). Biochemistry. The Benjamin / Cummings Publishing Company, Inc. California, 1990.
- Berg JM, Tymoczko JL, Stryer L (eds.) Biochemistry. Fifth edition. W.H. Freeman and Company, New York, 2002.
- Devlin TM (ed.), Textbook of Biochemistry with Clinical Correlations. Fifth edition Wiley-Liss, New York, 2002.
- Nelson DL, Cox MM (eds.), Lehninger Principles of Biochemistry, Fourth ed., WH Freeman &

Company, New York, 2005.

- Murray RK, Granner DL, Mayes PA, Rodwell VW (eds.), Harpers Biochemistry, Twenty-sixth ed., Mc Graw-Hill Companies, USA, 2005.

- Champe PC, Harvey RA, Ferrier DR (eds.) Lippincott's Illustrated Reviews: Biochemistry, 3<sup>rd</sup> ed., A Wolters Kluwer Company, Williams & Wilkins, Philadelphia, 2005.

## Basic Physiology Academics Advertisement

NAME of the COURSE: <b>BASIC PHYSIOLOGY</b>			Course Code: e119
ECTS Credits: 4	Semester: 2 <sup>nd</sup>	Undergraduate	Required
Hours: 56	Lectures: 2 hours/week  1hour/week	Tutorials: Course: 2 hour/ 2week Free work and seminary:	Language of the Course: English
Contact: Prof. Dr. Lütfi ÇAKAR, Prof. Dr Günnur YIĞIT, Prof. Dr. Tülin ORUÇ, Prof. Dr Ertan YURDAKOŞ, Prof. Dr. Gülderem ŞAHİN, Prof. Dr. H. Oktay SEYMEN.			

### Aims and Objectives:

To teach the general mechanisms and functions of the human physiology.

### Course Contents:

Introduction to physiology, homeostasis, body fluids compartments; extracellular and intracellular fluids, interstitial fluid and edema, physical properties of the blood fluid, osmotic and hemolytic process, transport across cell membrane, properties of excitable tissue, excitable tissue: nerve, intracellular communication, skeletal muscle, cardiac muscle, smooth muscle, aging-oxidant/antioxidant status, cellular death-apoptosis and necrosis.

### Assessment Methods:

Midterm 40%, Final Exam 60%

### Prerequisite:

- 1) 70% attendances of the lectures is required.
- 2) For the entrance of the final exam 80% of courses must be completed.
- 3) Final exam must over 50%.

### Recommended:

For the courses preliminary study required.

### Text Book/Recommended Readings:

- Ganong WF. Review of Medical Physiology Twenty Edition, McGraw-Hill Inc., New York, 2001.
- Guyton AC., Hall JE. Textbook of Medical Physiology. Tenth Edition, W.B. Saunders Company, Philadelphia, 2000.

NAME of the COURSE: <b>TURKISH II</b>			Course Code: e120
ECTS Credits: 2	Semester: 2 <sup>nd</sup>	Undergraduate	Required
Hours: 28	Lectures: 2 Hours/week	Tutorials:	Language of the Course: Turkish
Contact: Lecturer Rıza GERÇEK			

NAME of the COURSE: <b>ATATÜRK REVOLUTIONS and HISTORY II</b>			Course Code: e121
ECTS Credits: 2	Semester: 2 <sup>nd</sup>	Undergraduate	Required
Hours: 28	Lectures: 2 hours/week	Tutorials:	Language of the Course: Turkish
Contact: Assistant. Prof. Dr. Cevahir KAYAM			

**2. YEAR  
PRECLINICAL UNIT**

**3. SEMESTER (30 ECTS Credits)**

**General Microbiology Courses Academics Advertisement**

NAME of the COURSE: <b>GENERAL MICROBIOLOGY</b>			Course Code: e208
ECTS Credits: 5	Semester: 3 <sup>rd</sup>	Undergraduate	Required
Hours: 70	Lectures: 3 hours/week	Tutorials: Practical courses: 2 hours/week	Language of the Course: English
Contact: Prof. Dr. Gülden YILMAZ, Prof. Dr. Salih TÜRKOĞLU.			

**Aims and Objectives:**

It's aimed to make an introduction to microbial world, which is medically important including bacteria, viruses and prions. The basic properties of medically important microorganisms, including their morphologies, classification, culture and identification properties are lectured.

**Course Contents:**

General microbiology, introduction to bacteriology, classification, bacterial metabolism, bacterial genetics, normal flora, bacterial pathogenesis, specific acquired immunity, epidemiology, principles of diagnosis, antimicrobial agents, sterilisation and disinfection, staphylococcus and streptococcus, neisseria, branhamella, moraxella and acinetobacter, bacillus, micellaneus pathogenic bacteria, anaerobes; general characteristics, clostridia, spor forming anaerobic bacilli, anaerobic cocci, anaerobic gram negative bacilli, salmonella, shigella, campylobacter and helicobacter, cholera, vibrio cholera 01 and 0139 and other pathogenic vibrios, escherichia coli in diarrheal disease, escherichia, klebsiella, enterobacter, serratia, citrobacter, proteus, pseudomonas, brucella, pasteurilla, yersinia, francisella, haemophilus species, bordetella, corynebacterium diphtheriae, mycobacteria, nocardia, actinomyces, propionibacterium, propionicus, streptomyces, leptospira, borrelia, (including lyme disease) and spirillum, treponema, mycoplasma, rickettsiae, chlamydia, legionella, introduction to virology, multiplication, viral genetics, effects on cells, viral pathogenesis, tumor viruses, transformation, epidemiology and evolution, non-specific defences, control of viral infection and diseases, picornaviruses, orthomyxoviruses, rhabdoviruses, norwalk virus and caliciviruses, poxviruses, sub acute spongiform virus encephalopathies, filoviruses, herpes viruses, hepatitis viruses.

**Assessment Methods:**

Courses 10 %, Midterm 30 %, Final Exam 60 %.

**Prerequisite:**

- 1) 70 % attendances to the lectures is required
- 2) 80 % attendances to the practical courses is required
- 3) Final examination mark must be over than 50

**Recommended:**

For the courses preliminary study is required.

**Text Book/Recommended Readings:**

- Medical Microbiology: Patrick R. Murray, Ken S. Rosenthal, George S. Kobayashi, Michael A. Faller. Mosby Inc., St.Louis, 2002.
- Medical Microbiology: Cedric Mims, Hazel M. Dockrell, Richard V.Goering, Ivan Roitt, Derek Wakelin, Mark Zuckerman. Mosby Inc., St.Louis, 2004.

## Basic Anatomy Academics Advertisement

NAME of the COURSE: <b>BASIC ANATOMY</b>			Course Code: 210
ECTS Credits: 9	Semester: 3 <sup>rd</sup>	Undergraduate	Required
Hours: 126	Lectures: 4hours/week	Tutorials: Course: 4 hours/ week Free work and seminary: 1 hour/week	Language of the Course: English
Contact: Prof. Dr. Derya ERTEM, Prof. Dr Kaya ÖZKUŞ, Assoc. Prof. Dr. Tania MARUR			

### Aims and Objectives:

Gross anatomy of the human body with its function and clinical aspects. To teach the basic knowledge of the structures and organs and the correlation between the organs.

### Course Contents:

General anatomy: introduction to systemic anatomy, nervous system: introduction parts, peripheral nerves: cranial and spinal nerves, spinal and autonomic plexuses, introduction to cardiovascular system, pulmonary, renal, portal, lymphatic circulation, introduction to digestive system, digestive organs, respiratory system, urinary system, genital system, endocrine system, upper extremity: parts, deltoid and axillaries regions, arm and elbow, fore arm and hand, lower extremity: parts, hip and thigh, knee, leg, foot, head, scalp and parts, fossae and head, ear, face, nose and mouth, orbital region and eye, neck: regions, vessels and nerves of the neck, organs in the neck: thyroid and parathyroid glands, pharynx and oesophagus, larynx and trachea, thorax: walls, diaphragm, breast, thoracic cavity and mediastinum, mediastinal structures, trachea and bronchi, pleura and lungs, pleura and lungs, pericardium and heart, heart: structure, vessels and nerves of the heart.

### Assessment Methods:

Midterm 40%, Final Exam 60%

### Prerequisite:

- 1) 70% attendances of the lectures is required.
- 2) For the entrance of the final exam 30% of courses must be completed.
- 3) Final exam must over 50%.

### Recommended:

For the courses preliminary study required.

### Text Book/Recommended Readings:

- Snell R.S. Clinical anatomy for medical students, 6<sup>th</sup> ed. Lippincot –Raven, Philadelphia, 2000.
- Putz R, Pabst R. Sobotta atlas of Human Anatomy Vol 1,2. Urban & Schwarzenberg, Munich, 1994.
- Moore KL, Dalley AF. Clinically Oriented Anatomy. 4<sup>th</sup> ed. Lippincott Williams & Wilkins, Baltimore, 1999.

## Systems Physiology Academicals Advertisement

NAME of the COURSE: <b>SYSTEMS PHYSIOLOGY</b>			Course Code: e211
ECTS Credits: 6	Semester: 3 <sup>rd</sup>	Undergraduate	Required
Hours: 84	Lectures: 4 hours/week	Tutorials: Course: 2 hours/ week	Language of the Course: English
Contact: Prof. Dr. Tülin ORUÇ, Prof. Dr. Günnur YIĞIT, Prof. Dr. Lütfi ÇAKAR, Prof. Dr. Gülderen ŞAHİN.			

### Aims and Objectives:

To teach the basic functions of the physiological systems of the human body, with its clinical aspects.

### Course Contents:

Circulation: the heart and circulation, electrical and mechanical activity of the heart, the cardiac cycle, volume changes during cardiac cycle, cardiac output and heart sounds, electrocardiogram, dynamics of blood flow and lymph flow, regulation of arterial pressure by nervous system, humoral regulation of arterial pressure, cardiovascular regulatory mechanisms, circulation through special regions, blood cells, immunity and blood clotting: red blood cells, anemia and polycythemia, resistance of the body to infection: leucocytes, granulocyte and monocyte-macrophage, system and inflammation, resistance of the body to infection: immunity and allergy, blood groups: transfusion and organ transplantation (OAB and Rh blood group), hemostasis and blood coagulation, anticoagulants for clinical use, endocrinology: the pituitary hormones and their control by hypothalamus, the thyroid metabolic hormones, insulin, glucagon and diabetes mellitus, parathyroid hormone-calcitonin, calcium and phosphate metabolism, vitamin d, bone, respiration: mechanics of respiration: inspiratory and expiratory mechanisms, compliance of the lungs and chest wall, lung volume and capacities, gas exchange in the lung, regulation of respiration, environmental physiology: response to high altitude and increased ambient pressure, gastro-intestinal physiology: general principles of gastrointestinal function, transport and mixing of food in the alimentary tract, secretory functions of the alimentary tract, digestion and absorption in the gastrointestinal tract.

### Assessment Methods:

Practical exam 10%, Midterm 30%, Final Exam 60%.

### Prerequisite:

- 1) 70% attendances of the lectures is required.
- 2) For the entrance of the final exam 80% of courses must be completed.
- 3) Final exam must over 50%.

### Recommended:

For the courses preliminary study required.

### Text Book/Recommended Readings:

- Ganong WF. Review of Medical Physiology Twenty Edition, McGraw-Hill Inc., New York, 2001.
- Guyton AC., Hall JE. Textbook of Medical Physiology. Tenth Edition, W.B. Saunders Company, Philadelphia, 2000.
- Vander AJ. Sherman JH., Luciano DS. Human Physiology, The Mechanisms of Body Function, Sixth Edition. Mc Graw-Hill Inc., New York, 1994.
- West JB. Physiological Basis of Medical Practice, Twelfth Edition, Williams & Wilkins, Baltimore, 1990.

## Special Histology Academics Advertisement

NAME of the COURSE: <b>SPECIAL HISTOLOGY</b>			Course Code: e212
ECTS Credits: 5	Semester: 3 <sup>rd</sup>	Undergraduate	Required
Hours: 70	Lectures: 3 hours/week	Tutorials: Course: 2 hour/ weeks	Language of the Course: English
Contact: Prof. Dr. Oktay ARDA			

### **Aims and Objectives:**

Description of the microscopic structure of the cells, tissues, and organs of the systems of the human body by spatial arrangements of the basic form tissues.

### **Course Contents:**

The circulatory system, the immune system and lymphoid organs, digestive tract and glands associated with the digestive tract, the respiratory system, the neuroendocrine hypothalamo-hypophyseal system and adrenals, islets of Langerhans, thyroid, parathyroid, and pineal gland, the urinary system, the male reproductive system, the female reproductive system, skin, nervous system, the sense organs.

### **Assessment Methods:**

Midterm: Courses 10%, Lectures 90%

Final Exam: Courses 30%, Lectures 70%

Midterm 40%, Final Exam 60%.

### **Prerequisite:**

- 1) 70% attendances of the lectures is required.
- 2) For the entrance of the final exam 8 of 10 courses must be completed.
- 3) Final exam must over 50%.

### **Recommended:**

For the courses preliminary study required.

### **Text Book / Recommended Readings:**

- Basic Histology, Text & Atlas: Luiz Carlos Junqueira, José Carneiro 10th Edition, McGraw-Hill Companies, 2002.
- Histology A Text and Atlas: Michael H. Ross Gordon I. Kaye Wojciech Pawlina. 4TH Edition, Williams & Wilkins, 2002.
- A Textbook Of Histology: W. Bloom, D. W Fawcett. 10<sup>th</sup> edition, W. B. Saunders Com. 1972.
- Histology. A Text and Atlas: J.A.G. Rhodin, Oxford University Press, 1974.

## Metabolic Pathways in Biochemistry Academicals Advertisement

NAME of the COURSE: <b>METABOLIC PATHWAYS IN BIOCHEMISTRY</b>			Course Code: e213
ECTS Credits: 4	Semester: 3 <sup>rd</sup>	Undergraduate	Required
Hours: 56	Lectures: 2hours/week	Tutorials: Course: 2hours/week	Language of the Course: English
Contact: Prof. Dr. Orkide DONMA, Prof. Dr. Arzu SEVEN.			

### Aims and Objectives:

To introduce the concept of metabolic homeostasis and the involved regulatory mechanisms, to describe biological oxidation, the enzymes involved, to describe how reduced equivalents produced from catabolism of carbohydrates, fats and amino acids are funnelled to electron transport system. To explain the mechanism of coupling oxidation to phosphorylation of ADP, the operating regulatory mechanisms. To deal with catabolic systems that break down carbohydrates to yield energy and with other metabolic pathways. To deal with anabolic systems that build up carbohydrate storage molecules. To deal with catabolic systems that break down fats to yield energy and also with the other side reactions of metabolism, the building up of fat molecules and related compounds in the body, to overview the metabolic pathways for amino acid catabolism, urea synthesis and conversion of the amino acids to clinically important compounds.

### Course Contents:

Anabolic and catabolic pathways, metabolic homeostasis, the mechanisms of regulation, biological oxidation, oxidoreductases, electron transport system components, the process of oxidative phosphorylation, the regulatory mechanisms, the uncouplers and the inhibitors. The digestion and absorption of carbohydrates, glucose transport, glycolysis, metabolism of lactic acid and pyruvate, 2,3-bisphosphoglycerate formation, citric acid cycle, pentose phosphate pathway, gluconeogenesis, glycogenesis, glycogenolysis and the hormonal regulatory mechanisms in the liver and muscle, glucuronic acid metabolism, metabolism of fructose, mannose and galactose, synthesis of amino-sugars, the metabolic derangements in diabetes mellitus, glycogen storage diseases and the other disorders of carbohydrate metabolism. Lipids: digestion, absorption, transport, metabolism, the major pathways for biosynthesis, catabolism, and storage, adipose tissue metabolism, the, cholesterol and the other major lipids and lipid derivatives, lipoprotein receptors, the role of cholesterol in the development of atherosclerosis, the metabolism of alcohol and fatty liver, the biochemistry of diseases associated with abnormalities in lipid metabolism, hyper- and hypolipidemias. Proteins: digestion, absorption,  $\gamma$ -glutamyl cycle, deamination of amino acids and urea synthesis, metabolism of carbon skeletons of amino acids for energy extraction, genetic defects in the catabolism or biosynthesis of amino acids and the related metabolic diseases, the synthesis and physiological significance of specialized amino acid products.

### Assessment Methods:

Courses 20%, Midterm 20%, Final Exam 60%

The curve system is used in the evaluation of examination results.

### Prerequisite/Recommended:

For the courses preliminary study required.

### Text Book / Recommended Reading:

- Baynes J, Dominiczak MH.(eds.), Medical Biochemistry. Harcourt Brace and Company Mosby, London, 1999
- Devlin TM(eds.), Textbook of Biochemistry with Clinical Correlations. 5<sup>th</sup> ed. Wiley-Liss, New York, 2002
- Bhagavan NV(eds.), Medical Biochemistry. 4<sup>th</sup> ed. Harcourt/Academic Press, San Diego, 2002
- Smith C, Marks A, Lieberman M(eds.), Marks' Basic Medical Biochemistry. A Clinical Approach. 2<sup>nd</sup> ed. Lippincott Williams & Wilkins, Philadelphia, 2005
- Champe PC, Harvey RA, Ferrier DR (eds.), Lippincott's Illustrated Reviews: Biochemistry. 3<sup>rd</sup> ed., A Wolters Kluwer Company, Williams & Wilkins, Philadelphia, 2005.
- Nelson DL, Cox MM (eds.), Lehninger Principles of Biochemistry. 4<sup>th</sup> ed., WH Freeman & Company, New York, 2005.
- Murray RK, Granner DL, Mayes PA, Rodwell VW (eds.), Harpers Biochemistry, Twenty-sixth ed., Mc Graw-Hill Companies, USA, 2005.

NAME of the COURSE: <b>FINE ARTS or SPORTS</b>			Course Code: e219
ECTS Credits: 1	Semester: 3 <sup>rd</sup>	Undergraduate	Selective
Hours: 14	Lectures:	Tutorials: Courses: 1 hours/week	Language of the Course: Turkish
Contact: Lecturer Feridun ÖZGÜMÜŞ / Lecturer Çiğdem AKDEMİR			

#### 4. SEMESTER (30 ECTS Credits)

##### Medical Parasitology Academics Advertisement

NAME of the COURSE: <b>MEDICAL PARASITOLOGY</b>			Course Code: e201
ECTS Credits: 5	Semester: 4 <sup>th</sup>	Undergraduate	Required
Hours: 70	Lectures: 2 hours/week	Tutorials: Practical courses: 2 hours/week Free work and seminary: 1 hour	Language of the Course: English
Contact: Prof. Dr. Ayşen GARGILI, Prof. Dr. Yasar BAĞDATLI			

##### **Aims and Objectives:**

Medical Parasitology aims to teach students about the nature of parasitism by giving the basic knowledge on the parasites which are capable to infect humans, will not give comprehensive coverage of all aspects, the students will learn the life cycles and transmission ways of the parasites, pathogenesis of the parasitic diseases, diagnosis of the parasitic diseases, zoonotic parasites, vector-borne parasites and laboratory's role in medical parasitology.

##### **Course Contents:**

Introduction to parasitology, important terms of parasitology, definition of the relationships between individuals, general classification and morphology of arthropoda phylum, aspects of insecta class, mosquitoes (culicidae), phlebotomus (psycodidae), types and agents of myiasis, lice, pediculosis, medical significance of lice, fleas, flea infestations, medical significance of fleas, bedbugs, general classification and morphology of arachnida class, ticks, ticks-borne diseases, mites, scabies, introduction to helminthology, classification and morphology of nematoda class, enterobius vermicularis, enterobiosis, ascaris lumbricoides, ascariidosis, trichuris trichura, trichurosis, hookworms of medical importance, aberrant nematode infections, visceral and ocular larva migrans, trichinella spiralis and trichinosis, filarial worms, general aspects of trematoda class, schistosoma spp, fasciola spp, paragonimus spp. clonorchis spp, dicrocoelium dentriticum, cestoda class, larval and adult cestod infections, taeniosis, hydatid disease (hydatidosis) echinococcus spp, introduction to protozoology, classification and morphology of protozoa, urogenital and intestinal protozoa, trichomoniasis, giardiasis, amebiasis, tissue dwelling protozoa, toxoplasmosis, pneumocystis, blood protozoa, leishmania spp, trypanosoma spp, plasmodium spp, malaria disease, diagnosis of parasitic diseases, conventional, serological and molecular biological methods for identification of the parasites and diagnosis of the parasitic diseases.

##### **Assessment Methods:**

Courses 10 %, Midterm 30 %, Final Exam 60 %.

##### **Prerequisite:**

- 1) 70 % attendances to the lectures is required
- 2) 80 % attendances to the practical courses is required
- 3) Final examination mark must be over than 50 (total: 100).

##### **Recommended:**

For the courses preliminary reading is required.

##### **Text Book/Recommended Readings:**

- Parasitic Diseases, 4<sup>th</sup> ed. D.D. Despommier, R.W. Gwadz, P.J. Hotez, C.A. Knirsch. Apple Trees Productions, LLC, New York, 2000
- Foundations of Parasitology, 7<sup>th</sup> ed. L.S. Roberts, and J. Janovy, McGraw-Hill Companies, Singapore, 2005.

## Topographic Anatomy and Neuro Anatomy Academicals Advertisement

NAME of the COURSE: <b>TOPOGRAPHIC ANATOMY AND NEURO ANATOMY</b>			Course Code: e215
ECTS Credits: 9	Semester: 4 <sup>th</sup>	Undergraduate	Required
Hours: 126	Lectures: 3hours/week  hour	Tutorials: Course: 4 hours/week Free work and seminary: 2	Language of the Course: English
Contact: Prof. Dr. Derya ERTEM, Prof. Dr Kaya ÖZKUŞ, Assoc. Prof. Dr. Tania MARUR			

### **Aims and Objectives:**

Gross anatomy of the human body with its function and clinical aspects, to teach the basic knowledge of the structures and organs and the correlation between the organs.

### **Course Contents:**

Abdomen, surface anatomy and walls, peritoneum, digestive organs, retroperitoneum, posterior abdominal wall, kidneys and ureters, nerves and vessels, pelvis and perineum, female genital organs, male genital organs, meninges, cerebrum: divisions, forebrain, midbrain, hindbrain, spinal cord, vessels of CNS, autonomic nervous system, cranial nerves.

### **Assessment Methods:**

Midterm 40%, Final Exam 60%.

### **Prerequisite:**

- 1) 70% attendances of the lectures is required.
- 2) For the entrance of the final exam 30% of courses must be completed.
- 3) Final exam must over 50%.

### **Recommended:**

For the courses preliminary study required.

### **Text Book/Recommended Readings:**

- Snell R.S. Clinical anatomy for medical students, 6<sup>th</sup> ed. Lippincot –Raven, Philadelphia, 2000.
- Snell R.S. Clinical Neuro anatomy for Medical Students. 4<sup>th</sup> edition. Lippincot –Raven, Philadelphia, 1997.
- Putz R, Pabst R. Sobotta atlas of Human Anatomy Vol 1,2. Urban & Schwarzenberg, Munich, 1994.
- Moore KL, Dalley AF. Clinically Oriented Anatomy. 4<sup>th</sup> ed. Lippincott Williams & Wilkins, Baltimore, 1999.

## Embryology Academicals Advertisement

NAME of the COURSE: <b>EMBRYOLOGY</b>			Course Code: e216
ECTS Credits: 3	Semester: 4 <sup>th</sup>	Undergraduate	Required
Hours: 42	Lectures: 2 hours/week hour/week	Tutorials: Free work and seminary: 1	Language of the Course: English
Contact: Prof. Dr. Oktay ARDA			

### **Aims and Objectives:**

Describing embryology and its clinical significance. An overview of early development from gametogenesis through the embryonic period; placental and fetal development and prenatal diagnosis and birth defects. Description of the fundamental processes of embryogenesis for each organ system. New information about the molecular basis of normal and abnormal development.

In addition to describing normal events, to provide information about birth defects and other clinical entities that is directly related to embryologic concepts. Give numerous clinical examples that result from abnormalities in developmental processes.

### **Course Contents:**

Gametogenesis: Conversion of Primordial, Germ Cells into Male and Female Gametes, First week of development: Ovulation to Implantation, Second week of Development: Bilaminar Germ Disc, Third Week of Development: Trilaminar Germ Disc, Third to Eight Week of Development: Embryonic Period, Third Month to Birth: Fetal Period, Fetal Membranes and Placenta, Birth defects and Placental Diagnosis, Skeletal System, Muscular System, Body Cavities, Cardiovascular System, Respiratory System, Digestive System, Urogenital System, Head and Neck, Ear, Eye, Integumentary System, Central Nervous System.

### **Assessment Methods:**

Midterm 40%, Final Exam 60%.

### **Prerequisite:**

70% attendances of the lectures are required.

Final exam must over 50%.

### **Recommended:**

For the lectures preliminary study required.

### **Text Book / Recommended Readings:**

- Langman 's Medical Embryology 9<sup>th</sup> edition: T. W Sadler, Lippincott Williams & Wilkins, 2005.
- The Developing Human, Clinically Oriented Embryology 7th edition: Keith L. Moore, T.V.N Persaud, Saunders com, 2003.
- Atlas of Human Anatomy, 3rd Edition: Frank H. Netter, John T. Hansen, Icon Learning Systems 2002.

## Tissue and Gene Biochemistry Academicals Advertisement

NAME of the COURSE: <b>TISSUE AND GENE BIOCHEMISTRY</b>			Course Code: e217
ECTS Credits: 6	Semester: 4 <sup>th</sup>	Undergraduate	Required
Hours: 84	Lectures: 2hours/week  2hour/week	Tutorials: Course: 2hours/week Free work and seminary:	Language of the Course: English
Contact: Prof. Dr. Orkide DONMA, Prof. Dr. Gülden BURÇAK, Prof. Dr. Sevil ATASOY			

### Aims and Objectives:

To describe the general characteristics of the endocrine system, to describe the functional properties of receptors and to explain the action mechanisms of hormones, to describe the metabolism, effects and related disorders of hormones. To describe the structural and metabolic characteristics of erythrocytes, to describe the metabolism and functions of hemoglobin and to introduce the hemoglobinopathies, erythrocyte enzyme defects, porphyrias and the hyperbilirubinaemias, to describe cellular components and functions of epithelial cells, and the related pathologic states, to consider the molecular features and biological roles of connective tissue substances and biochemical pathways leading to the related disorders, to introduce the different cells of the nervous system, and to describe the various classes of neurotransmitters. To introduce the synthesis and metabolism of purine and pyrimidine nucleotides, to describe the synthesis of DNA, to understand the role of DNA as a new forensic science tool in human identification.

### Course Contents:

The general characteristics of the endocrine system and the signal transduction systems. Consideration of hormones individually, with respect to structure, metabolism, the biochemical basis of the effects, action mechanisms and the related diseases. The erythrocytes: cytoskeletal proteins and the metabolic features. Hemoglobin: the biosynthesis and degradation of heme; porphyrias and hyperbilirubinaemias, biochemistry of respiration. The epithelial and endothelial cell properties and functions, characteristics of polarized epithelial cells. The extracellular matrix, the connective tissue and its components, types, biosynthesis and post-translational modification of collagen, noncollagenous proteins, inherited disorders of connective tissue. The types of muscle fibrils and their energy supply, the contractile system and the proteins, contraction and control in various types of muscle, the sources of energy, the biochemical assays to diagnose skeletal muscle and myocardial diseases. The nervous system cells, brain metabolism, neurotransmission, receptors and the effects of each neurotransmitter and the related diseases. Digestion of dietary nucleic acids, synthesis and catabolism of purine and pyrimidine nucleotides, related clinical disorders. The synthesis of DNA, mutations, repair mechanisms. RNA synthesis, modifications, protein synthesis and posttranslational modifications, effects of drugs, recombinant DNA technology. The principles of human identification, the role of genetic polymorphism, the restriction fragment length polymorphism in forensic sciences, the advantages of PCR technology, the use of short tandem repeat polymorphism, information about the 'combined DNA index system'.

### Assessment Methods:

Courses 20%, Midterm 20%, Final Exam 60%.

### Prerequisite:

The curve system is used in the evaluation of examination results.

### Recommended:

For the courses preliminary study required.

### Text Book / Recommended Reading:

- Baynes J. Dominiczak MH (eds). Medical Biochemistry. Harcourt Brace and Company Limited, England, 1999.
- Devlin TM (eds). Textbook of Biochemistry with Clinical Correlations, 5<sup>th</sup> ed., Wiley-Liss, New York, 2002
- Bhagavan NV (ed.) Medical Biochemistry, 4<sup>th</sup> ed., Harcourt/Academic Press, San Diego, 2002
- Nelson DL, Cox MM (eds.), Lehninger Principles of Biochemistry, 4<sup>th</sup> ed., WH Freeman & Company, New York, 2005.
- Murray RK, Granner DL, Mayes PA, Rodwell VW (eds.), Harpers Biochemistry, Twenty-sixth ed., Mc Graw-Hill Companies, USA, 2005.

- Champe PC, Harvey RA, Ferrier DR (eds.) Lippincott's Biochemistry, 3<sup>rd</sup> ed., A Wolters Kluwer Company, Williams and Wilkins, USA, 2005.
- Smith C, Marks A, Lieberman M(eds), Marks' Basic Medical Biochemistry. A Clinical Approach. 2<sup>nd</sup> ed., Lippincott Williams & Wilkins, Philadelphia, 2005.

## Control Mechanisms in Physiology Academics Advertisement

NAME of the COURSE: <b>CONTROL MECHANISMS IN PHYSIOLOGY</b>			Course Code: e218
ECTS Credits: 7	Semester: 4 <sup>th</sup>	Undergraduate	Required
Hours: 98	Lectures: 4 hours/week	Tutorials: Course: 2 hours/ week Free work and seminary: 1 hour/week	Language of the Course: English
Contact: Prof. Dr. Tülin ORUÇ, Prof. Dr. Gülderen ŞAHİN, Prof. Dr. Lütfi ÇAKAR, Prof. Dr. H. Oktay SEYMEN, Prof. Dr. Ertan YURDAKOŞ, Prof. Dr. Günnur YİĞİT.			

### Aims and Objectives:

To teach the basic control mechanisms of the physiological functions of the human body with its clinical aspects.

### Course Contents:

The kidneys: functional anatomy of the kidney and the nephron, renal circulation regulation of renal blood flow and glomerular filtration, tubular function mechanisms of tubular reabsorption and secretion, water excretion and acidification of the urine factors affecting acid secretion, regulation of Na<sup>+</sup> and K<sup>+</sup> excretion, diuretics and micturition, energy sources and metabolism, neurophysiology: the eye: optic of vision, receptor and neural function of the retina, central neurophysiology of vision, the sense of hearing, the physiology of equilibrium, synaptic transmission, sensation and sensory receptors, reflexes, polysynaptic reflexes, cutaneous, deep and visceral sensation, pain, headache, and thermal sensations, cortical and brainstem control of motor function, central regulation of visceral function, limbic system, higher functions of the central nervous system, endocrinology: hypothalamo-hypophysial-adrenal gland system, hypothalamo-neurohypophysial axis and ADH, the function of the adrenal gland hormones, reproductive and hormonal functions of male, female sexual organs and hormonal system, pregnancy and lactation hormonal regulation.

### Assessment Methods:

Practical exam 10%, Midterm 30%, Final Exam 60%

### Prerequisite:

- 1) 70% attendances of the lectures is required.
- 2) For the entrance of the final exam 80% of courses must be completed.
- 3) Final exam must over 50%.

### Recommended:

For the courses preliminary study required.

### Text Book/Recommended Readings:

- Ganong WF. Review of Medical Physiology Twenty Edition, McGraw-Hill Inc., New York, 2001.
- Guyton AC., Hall JE. Textbook of Medical Physiology. Tenth Edition, W.B. Saunders Company, Philadelphia, 2000.
- Vander AJ, Sherman JH, Luciano DS. Human Physiology, The Mechanisms of Body Function, Sixth Edition. Mc Graw-Hill Inc., New York, 1994.
- West JB. Physiological Basis of Medical Practice, Twelfth Edition, Williams & Wilkins, Baltimore, 1990.

**3. YEAR  
CLINICAL UNIT**

**5. SEMESTER (30 ECTS Credits)**

**Introduction to Internal Medicine Academics Advertisement**

NAME of the COURSE: <b>INTRODUCTION TO INTERNAL MEDICINE</b>			Course Code: e303
ECTS Credits: 10	Semester: 5 <sup>th</sup>	Undergraduate	Required
Hours: 140	Lectures: 6Hours/weeks	Tutorials: 4 hours/week	Language of the Course: English
Contact: Prof. Dr. Yesari KARTER, Assoc. Prof. Dr. Sevtap Sipahi DEMİRKÖK, Prof. Dr. Hakan ŞENTÜRK, Assoc. Dr. Dr. Aykut Ferhat ÇELİK, Prof. Dr. Ahmet DOBRUCALI, Prof. Dr. Teoman SOYSAL, Assoc. Prof. Dr. Zafer BAŞLAR, Prof. Dr. Burhan FERHANOĞLU, Prof. Dr. Kamil SERDENGEÇTİ, Assoc. Prof. Dr. Süheyla APAYDIN, Prof. Dr. Deniz ERDİNÇLER, Prof. Dr. Ertuğrul TAŞAN, Assoc. Prof. Dr. İzzet FRESKO, Prof. Dr. Fuat DEMİRELLİ, Prof. Dr. Huri ÖZDOĞAN.			

**Aims and Objectives:**

To provide a basic understanding of the biology and pathophysiology of systemic diseases, to incorporate diagnostic and therapeutic knowledge and skills throughout his/her career. Early lectures cover mostly bedside physical examination techniques and skills to recognize signs and symptoms of disease.

**Course Contents:**

Physical examination, history taking, examination of head and neck, physiology of liver function and liver diseases, history taking of gastrointestinal disorders, examination of abdomen, jaundice, ascites, history taking and physical examination of hematologic disorders, examination of peripheral blood smear and bone marrow, lymphadenopathy, history and physical examination in kidney disease, urine, oliguria and polyuria, hematuria, history taking and examination of the elderly, history taking and physical examination in endocrine disorders, history taking and physical examination in rheumatologic disorders, signs and symptoms of malignancy.

**Assessment Methods:**

Both oral examination 50% and written examination 50%.

**Prerequisite / Recommended:**

Full attendance to the theoretical and bedside practical courses is required to take the final exams.

**Text Book/Recommended Readings:**

- Harrison's Principles of Internal Medicine, 15<sup>th</sup> edition, Braunwald E, Fauci A, Kasper D, Hauser S, Longo D, Jameson D, McGraw-Hill, 2001.

## Introduction to Surgery Academicals Advertisement

NAME of the COURSE: <b>INTRODUCTION TO SURGERY</b>			Course Code: e304
ECTS Credits: 5	Semester: 5 <sup>th</sup>	Undergraduate	Required/Selective
Hours: 70	Lectures: 3 hours/week	Tutorials: Courses: 2 hours/week	Language of the Course: English
Contact: Prof. Dr. Serdar YÜCEYAR, Prof. Dr. Süphan ERTÜRK, Prof. Dr. Hilal ÜNAL, Prof. Dr. Olcay ALVER, Prof. Dr. Ümit BALCI SOY, Prof. Dr. Ceyhun ORAL, Prof. Dr. Yusuf ÇIÇEK, Prof. Dr. Asiye PEREK, Prof. Dr. Mete DÜREN, Prof. Dr. Varol ÇELİK, Assoc. Prof. Dr. İsmail HAMZAOĞLU, Assoc. Prof. Dr. Melih PAKSOY, Assoc. Prof. Dr. Berat APAYDIN, Assoc. Prof. Dr. Ertuğrul GAZİOĞLU			

### Aims and Objectives:

The lectures have been organized in an attempt to expose students to the basic principles to surgery. An understanding of the regulation of hemostasis, fluid-electrolyte or acid-base disorder is essential in the care of surgical patient, as is knowledge about wound healing and surgical infections. However, they have not met with patients as a living object before, aim of our program for those students is to provide updated information that will be of assistance to the young trainee embarking a medical career. An introducing with the pathophysiology, clinical manifestations, physical signs, and diagnostic features of each organ systems has been purposed in lectures. In practical courses, participation in the clinical teams will provide the opportunity to see and recognize problems, develop interviewing and physical diagnosis skills.

### Course Contents:

History taking and physical examination, fluid and electrolyte physiology and pathology, acid-base disorders, wound healing, care and complications, head and neck examination, endocrine and metabolic responses to injury, "homeostasis, surgical bleeding and transfusion", abdominal examination, basic surgical techniques, shock, first aid, asepsis and antisepsis, abdominal masses, pathophysiology, clinical manifestations, physical signs and diagnostic features of: intestinal diseases, hepatic diseases, gastro duodenal diseases, gastrointestinal bleeding, splenic diseases, oesophageal diseases proctologic diseases, pancreatic diseases, adrenal diseases biliary tract diseases, thyroid diseases parathyroid diseases breast diseases, an access to urology 1, an access to urology 2, an access to heart surgery, gastrointestinal bleeding in childhood, abdominal pain related to surgical causes in childhood, vomiting in childhood, respiratory distress in childhood, an access to vascular surgery, an access to thoracic surgery.

### Assessment Methods:

Midterm (40%), Final exam (60%).

### Prerequisite:

80 % attendance of the courses and 70 % attendance of the lectures are required.  
Final exam must over 50 %.

### Text Book / Recommended Reading:

- Hamilton Bailey's Demonstrations of Physical Signs in Clinical Surgery. Allan Clain. English Language Book Society/John Wright, 1986.
- Current Surgical Diagnosis and Treatment, Lawrence W. Way, Gerard M. Doherty, Lange Medical Books / Mc Graw- Hill, 2003.

## Clinical Microbiology Academicals Advertisement

NAME of the COURSE: <b>CLINICAL MICROBIOLOGY</b>			Course Code: e309
ECTS Credits: 7	Semester: 5 <sup>th</sup>	Undergraduate	Required
Hours: 98	Lectures: 4 hours/week	Tutorials: Practical courses: 2 hours/week Free work and seminary: 1 hour	Language of the Course: English
Contact: Prof. Dr. Yaşar BAĞDATLI, Prof. Dr. Gülden YILMAZ, Prof. Dr. Salih TÜRKOĞLU			

### **Aims and Objectives:**

The aim of this course is to make an overview of the general most important characteristics of medically important microorganisms including bacteria and viruses and mainly to teach the students the pathogenesis and clinical course of the infectious diseases of these microorganisms and the detailed laboratory diagnosis of these diseases.

### **Course Contents:**

Normal flora, host-parasite interactions, pathogenesis and immunopathology of infectious disease, infections in specific host, nosocomial infections, antimicrobial treatment, identification methods, bacillus spp., clostridium spp., corynebacterium listeria, erysipelothrixy, gardnerella, nocardia, actinomyces, mycobacterium, staphylococcus (aureus, epidermidis), streptococcus and enterococcus (s.pyogenes, s.agalactica, s.mutans, s.pneumoniae, enterococcus faecalis), bacillus (anthracis, cereus), clostridium (perfringens, tetani, botulinum, difficile), bacteroides (fragilis, thetaiotamicron, melaninogenicus), salmonella (typhi, enteritidis) paratyphi a, b, c, shigella (dysentaria, flexneria, sonneii), campylobacter, helicobacter, vibrio (cholera, el-tor and other vibriions), escherichia (ETEC, EPEC, EHEC, EIEC), coliforms (escherichia, enterobacter, klebsiella, serratia, citrobacter, proteus), pseudomonas (aeruginosa, others), acinetobacter stenotrophomonas maltophila, brucella (abortus, melitensis, suis, canis), yersinia (pestis, enterocolitica) and francisella, pasteurella bordetella (pertussis,parapertussis,bronchiseptica), neisseria (gonorrhoeae, meningitis), haemophilus (influenzae, parainfluenzae, ducreyi), legionella (pneumophila), treponema (pallidum (sphilis), pertenu (yaws), carateum (pinta)), leptospira (interrogans), borrelia (recurrentis, burgdorferi-lyme disease spirillum), mycoplasma (pneumoniae, ureaplasma), corynebacterium (diphtheriae, minutissimum), mycobacterium and nocardia, listeria chlamydiae rickettsiae introduction to clinical virology introduction to clinical virology ii basic concepts in the immunology to viruses human herpesviruses papovaviruses, adenoviruses poxviruses picornaviruses paramyxoviruses parvoviruses rhabdoviruses reoviruses orthomyxoviruses togaviruses, filaviruses, bunyaviruses, retroviruses 1 retroviruses 2 hepatitis viruses, hepatitis viruses, viral infections according to systems laboratory diagnosis.

### **Assessment Methods:**

Courses 10 %, Midterm Exam 30 %, Final Exam 60 %.

### **Prerequisite:**

- 1) 70 % attendances to the lectures is required.
- 2) 80 % attendances to the practical courses is required
- 3) Final examination mark must be over than %50.

### **Recommended:**

For the courses preliminary study is required.

### **Text Book/Recommended Readings:**

- Medical Microbiology: Patrick R. Murray, Ken S. Rosenthal, George S. Kobayashi, Michael A. Faller. Mosby Inc., St.Louis, 2002.
- Medical Microbiology: Cedric Mims, Hazel M. Dockrell, Richard V.Goering, Ivan Roitt, Derek Wakelin, Mark Zuckerman. Mosby Inc., St.Louis, 2004.

## Immunology Academics Advertisement

NAME of the COURSE: <b>IMMUNOLOGY</b>		Course Code: e310
ECTS Credits: 3	Semester: 5 <sup>th</sup>	Undergraduate
Hours: 42	Lectures: 3 hours/week:	Tutorials: Language of the Course: English
Contact: Prof. Dr. Kemal ALTAŞ, Prof. Dr. Yıldız CAMCIOĞLU, Prof. Dr. Gülden YILMAZ, Prof. Dr. Zafer BAŞLAR		

### **Aims and Objectives:**

Principles of immunology are very important in understanding mechanisms of many physiologic and pathologic processes in human beings. The principle goal of this course is to teach the basic principles of immunology in a way to enable students to understand the mechanisms and pathogenesis of immunologic and related disorders and to help them in gaining new perspectives in learning more about the nature of human beings.

### **Course Contents:**

Natural and adaptive immune mechanisms, cells involved in immune responses, concept of antigen, Ig: structure-function, mucosal immunity, phagocytosis, lymphoid tissues, lymphocyte traffic, complement system, cytokines, antigen processing and presentation, MHC antigens, structure and function, Organization and rearrangement of the TCR, B cell activation, T cell activation, Regulation of immune responses, Adhesion molecules, inflammation, immunology of infection, hypersensitivity reactions, mechanism of immunity, autoimmunity, primary immune deficiencies, AIDS, transplantation immunology, tumor immunology

### **Assessment Methods:**

Midterm 40%, Final Exam 60%.

### **Prerequisite / Recommended:**

Prerequisite

1) 70% attendance of the lectures is required.

2) Final examination must be over 50.

For the course preliminary study is recommended.

### **Text Book/Recommended Readings:**

- Cellular and Molecular Immunology. Abul K Abbas, Andrew H Lichtman, fifth ed, Saunders 2003.

### Basic General Pathology Academicals Advertisement

NAME of the COURSE: <b>BASIC GENERAL PATHOLOGY</b>			Course Code: e315
ECTS Credits: 5	Semester 5 <sup>th</sup>	Undergraduate	Required
Hours: 70	Lectures: 3 hours/week 2hours/week	Tutorials: Practical courses:	Language of the Course: English
Contact: Prof. Dr. Sergülen DERVIŞOĞLU, Prof. Dr. Gülşen ÖZBAY, Prof. Dr. Cüyan DEMİRKESEN			

#### Aims and Objectives:

For most of the medical students the lack of the consciousness students related to the knowledge of the disease, its pathogenesis and structural changes of the cells, tissues and organisms is one of the most important problems. The objective and aim of general pathology is to make acquainted with described above by training the students, how to interrogate the fundamentals of the dynamic changes in cells, and effects of etiologic causes on cells, tissues organs as a whole. Giving the scientific approaches to the students using diseased organ specimens to memorize basic tissue changes and teaching them how to deal with the lesions, structural changes and end result of this changes those never met before at morphological level and handle them the idea that all incidents in living structures are based on structural phenomenon instead of random and.

#### Course Contents:

Introduction to pathology, cell injury and the mechanisms, cellular response to injury, degeneration and necrosis, apoptosis, cellular adaptation and intracellular accumulation, amyloidosis, pathologic calcification, distribution of body fluids, pathogenesis of edema, clinical presentation of edema, dehydration, hyperemia, congestion, hemorrhage, hemostasis and thrombosis, embolism, ischemia and infarct, shock, hypertension, the concept of inflammation, inflammatory cells and elements, pathogenesis of inflammation, chronic inflammation, types of inflammation, chronic inflammation, types of inflammation, healing of the inflammation: regeneration and reparation, tissue repair, deviations from normal, factors interfering with healing, tissue repair, deviations from normal, factors interfering with healing, introduction to neoplasia, classification, general principles of benign tumours, examples, general principles of malignant tumours, features of malignant epithelial tumours, features of nonepithelial malignant tumours, tumor dissemination and tumor effects on host, molecular basis of tumor development, molecular basis of tumor development, cell kinetics of tumours, molecular basis of metastasis and angiogenesis, chemical and viral carcinogenesis, laboratory diagnosis of cancer, gastric and colorectal carcinogenesis, pathogenesis of leukemia and lymphomas, as a model of carcinogenesis, cytology, general principles of infectious disease, viral and bacterial infections fungal and opportunistic infections.

#### Assessment Methods:

Courses 10%, Midterm 30%, Final Exam 60%

#### Prerequisite:

70% attendances of the lectures are required.

For the entrance of the final exam 5 of 11 courses must be completed.

Final exam must over 50%.

At least 50 out of 100 must be scored in order to take oral final exam on organ specimens.

#### Recommended:

For the courses preliminary study required.

#### Text Book/Recommended Readings:

- Pathologic Basis of Diseases.Vinay Kumar, Abul K Abbas, Nelson Fausto 7th edition Elsevier Saunders Philadelphia, 2005-04-05.
- Pathology. Emanuel Rubin, John L. Farber. 3rd edition Lippincott-Raven Philadelphia, New York 1999.

## 6. SEMESTER (30 ECTS Credits)

### Basic Pharmacology Academics Advertisement

NAME of the COURSE: <b>BASIC PHARMACOLOGY</b>			Course Code: e301
ECTS Credits: 4	Semester: 6 <sup>th</sup>	Undergraduate:	Required
Hours: 46	Lectures: 4 hours/week	Tutorials:	Language of the Course: English
Contact: Prof. Dr. Cihat KÜÇÜKHÜSEYİN. Prof. Dr. Aydın BARLAS, Prof. Dr. Öner SÜZER, Prof. Dr. Zeliha YAZICI.			

**Aims and Objectives:**

Giving basic knowledge about pharmacology also basic and clinical knowledge about chemotherapeutics.

**Course Contents:**

Introduction to pharmacology, pharmacokinetics, pharmacodynamics, chemotherapeutics.

**Assessment Methods:**

Midterm 40%, Final Exam 60%

Multiple choice test examinations, grades are given according to Gauss distribution.

**Prerequisite/ Recommended:****Text Book/Recommended Readings:**

- Katzung Basic and Clinical Pharmacology (Bertram G. Katzung. 9<sup>th</sup> Edition, Lange Medical Books/McGraw-Hill 2004), Dales Pharmacology HP Rang, MM Dale, JM Ritter, PK Moore. 5<sup>th</sup> Edition, Churchill Livingstone 2003.

## Introduction To Obstetrics and Gynecology

NAME of the COURSE: <b>INTRODUCTION TO OBSTETRICS and GYNECOLOGY</b>			Course Code: e305
ECTS Credits: 5	Semester: 6 <sup>th</sup>	Undergraduate	Required
Hours: 70	Lectures: 2 hours/week  hour/week	Tutorials: Course: 2 hours/week Free work and seminary: 1	Language of the Course: English
Contacts: Prof. Dr. Feridun AKSU, Prof Dr. Vildan OCAK, Prof Dr. Sezai ŞAHMAY, Prof Dr. Tarık ALTINOK, Prof Dr. Fuat DEMİRKESEN, Prof Dr Rıza MADAZLI, Prof Dr. Cihat ŞEN, Prof Dr: Tamer EREL, Prof Dr. Tugan BEŞE, Prof Dr. Semih KALELİ, Prof Dr. Engin ORAL, Prof Dr. Levent ŞENTÜRK			

### **Aims and Objectives:**

Obstetrics and gynecology is an exceptional branch of medicine, this specialty and science should be concerned simultaneously with the lives of mother and the off sprigs, introduction to obstetric, gynecology and its related subbranches and of course statistics i.e. feto-maternal medicine, reproductive endocrinology, gynecologic oncology, gynecologic urology, their symptomology and diagnostic tools ultrasonography, laparoscopy etc, the essentials of family planning, perinatal mortality, maternal mortality, neonatal mortality which are very important facts to this country.

### **Course Contents:**

Introduction to obstetrics and its subdivisions, gross and microscopic anatomy of female reproductive tract, embryology and abnormal development of female reproductive tract, puberty adolescence adulthood menopause climacterium and senilium, normal menstrual cycle and its neuroendocrine control, symptoms in gynecology: bleeding, pain, flour genitalis, gynecologic history and examination, diagnostic aids and methods in gynecology, diagnostic tests in reproductive endocrinology and infertility, endoscopy principals in obstetrics and gynecology, reproduction physiology (gametogenesis, fertilisation, implantation), physiology and development of fetus and placenta, maternal changes and physiology during pregnancy, complaints, exercise and nutrition during pregnancy, prenatal care obstetric history examination, initial prenatal visit and follow up of normal pregnancy, special diagnostic aids and methods in obstetrics, normal labor, breast examination & diseases, shock in obstetrics and gynecology, family planning general aspects.

### **Assessment Methods:**

Midterm 40%, Final Exam 60%.

### **Prerequisite:**

- 1) 70% attendances of the lectures are required.
- 2) For the entrance of the final exam 15 courses must be completed.
- 3) Final exam must over 50%.

### **Recommended:**

For the courses preliminary study required.

### **Text Book/Recommended Readings:**

- Danfort Obstetrics and Gynecology, David N. Danforth, Lippincott Williams & Wilkins 1999. Current Obstetric and Gynecologic Diagnosis and Treatment Lange Series Alan H., DeCherney, Lauren, N., 9th ed Barnes & Noble 2002.
- Novak's Gynecology, 12 Editions. Williams & Wilkins, Baltimore, 1998.
- Telinde Operational Gynecology John Rock, Lippincott Williams & Wilkins, 2003.

## Introduction To Pediatrics Academicals Advertisement

NAME of the COURSE: <b>INRODUCTION TO PEDIATRICS</b>			Course Code: e306
ECTS Credits: 7	Semester: 6 <sup>th</sup>	Undergraduate	Required
Hours: 98	Lectures: 4 hours/week hours/week  hour/week	Tutorials:  Practical courses: 2  Seminary and free work: 1	Language of the Course: English
Contact: Prof. Dr. Yıldız PERK, Prof. Dr. Mehmet VURAL, Prof. Dr. Fügen ÇULLU, Prof. Dr. Tülay ERKAN, Prof. Dr. Tufan KUTLU, Prof. Dr. Yıldız CAMCIOĞLU, Prof. Dr. Haluk ÇOKUĞRAŞ, Prof. Dr. Oya ERCAN, Prof. Dr. Beyhan TÜYSÜZ, Prof. Dr. Serap UYSAL, Prof. Dr. Sabiha KESKIN, Prof. Dr. Ayşe EROĞLU, Prof. Dr. Levent SALTİK, Prof. Dr. Funda ÖZTUNÇ, Prof. Dr. Salim ÇALIŞKAN, Prof. Dr. Lale SEVER, Prof. Dr. Özgür KASAPÇOPUR, Prof. Dr. Halit ÇAM, Prof. Dr. Ahmet AYDIN, Prof. Dr. Tiraje CELKAN, Prof. Dr. Hilmi APAK, Prof. Dr. Alp ÖZKAN			

### Aims and Objectives:

The pediatric concept is designed for a basic training for a general practitioner as well as challenging opportunities for students who are enthusiastic in pediatric field, the symptoms and signs of the diseases are presented as both lectures and as practical courses with the patients.

### Course Contents:

Intrauterine development, growth and development, adolescent, respiratory system development, heredity, genetics tests, mental retardation, seizures, hypotony, acid-base balance, vaccination principles, newborn, neurological examination, urinary system development, endocrine system examination, short stature, extremities and muscles, respiratory system examination, anaemia, bleeding tendency, oedema, haematopoietic system development, fever, hepatomegaly and ascites, nutrition, introduction to metabolic diseases, abdominal and lymphoid system examination, lymphanomegaly, arthritis, prematurity, gastrointestinal system development, vomiting, diarrhea-constipation, rash, cough-stridor-wheezing, abdominal pain, splenomegaly, icterus, cardiac system development cardiac examination, water-electrolyte balance, hematuria-protenuria, cyanosis, dyspnea-chest pain.

### Assessment Methods:

Courses 10%, Midterm 30%, Final Exam 60%

### Prerequisite:

- 1) 70% attendances of the lectures are required.
- 2) For the entrance of the final exam 10 of 12 courses must be completed.
- 3) Final must over be 50%.

### Recommended:

For the courses preliminary study required.

### Text Book / Recommended Readings:

- Krugman's Infectious Diseases of Children 9<sup>th</sup> ed. Samuel L. Katz, Anne A. Gershon, Peter J. Hotez 1992 by Mosby-Year Book, Inc.
- Neonatology-Pathophysiology Management of the Newborn. Eds. Gordon B. Avery, Mary Ann Fletcher, Mhairi G. MacDonald. 1999 Lippincott Williams&Wilkins.
- Nelson Textbook of Pediatrics Eds: Richard E. Behrman, Robert M. Kliegman, Hal B. Jenson 17<sup>th</sup> edition international edition. 2004.

## General Surgery Academicals Advertisement

NAME of the COURSE: <b>GENERAL SURGERY</b>			Course Code: e313
ECTS Credits: 2	Semester: 6 <sup>th</sup>	Undergraduate	Required/Selective
Hours: 28	Lectures 2hours/ week	Tutorials:	Language of the Course: English
Contact: Prof. Dr. Serdar YÜCEYAR, Prof. Dr. Süphan ERTÜRK, Prof. Dr. Hilal ÜNAL, Prof. Dr. Olcay ALVER, Prof. Dr. Ümit BALCI SOY, Prof. Dr. Ceyhun ORAL, Prof. Dr. Yusuf ÇİÇEK, Prof. Dr. Asiye PEREK, Prof. Dr. Mete DÜREN, Prof. Dr. Varol ÇELİK, Assoc. Prof. Dr. İsmail HAMZAOĞLU, Assoc. Prof. Dr. Melih PAKSOY, Assoc. Prof. Dr. Berat APAYDIN, Assoc. Prof. Dr. Ertuğrul GAZİOĞLU			

### **Aims and Objectives:**

After the introduction to surgery, the achievement of detailed information about the diseases, particularly need to surgical approach, is purposed. The pathophysiology, clinical manifestations, physical signs and diagnostic features of organs' diseases are also given in association with other important general aspects of surgery.

### **Course Contents:**

Hydatid diseases, surgical oncology, surgical nutrition, acute abdomen and abdominal pain, malignant breast diseases, endocrine and metabolic responses to injury, postoperative complications, acute and chronic cholecystitis, acute appendicitis, acute pancreatitis, pancreatic carcinoma, portal hypertension, colorectal polyps, diverticular diseases, benign breast diseases, skin and soft tissue lesions, functional oesophageal diseases, colorectal carcinoma, peptic diseases, gastric carcinoma, oesophageal carcinoma, preoperative assessment in surgical patients, intestinal obstruction (excluded treatment), obstructive jaundice (excluded treatment), acid-base disorders, hernias.

### **Assessment Methods:**

Midterm (%40), Final exam (%60)

### **Prerequisite:**

70 % attendance of the lectures is required  
Final exam must over %50.

### **Text Book / Recommended Reading:**

- Current Surgical Diagnosis and Treatment, Lawrence W. Way, Gerard M. Doherty, Lange Medical Books / Mc Graw- Hill, 2003.

## Internal Medicine 1 Academicals Advertisement

NAME of the COURSE: <b>INTERNAL MEDICINE 1</b>			Course Code: e314
ECTS Credits: 4	Semester: 6 <sup>th</sup>	Undergraduate	Required
Hours: 56	Lectures: 2 Hours/Week	Tutorial 2 Hours/Week	Language of the Course: English
Contact: Assoc. Prof. Dr. Pınar KADIOĞLU, Prof. Dr. Sadi GÜNDOĞDU, Prof. Dr. Ertuğrul TAŞAN, Prof. Dr. Zeynep OŞAR, Prof. Dr. Taner DAMCI, Assoc. Prof. Dr. Gökhan DEMİR, Prof. Dr. Hasan İLKOVA, Prof. Dr. Uğur GÖRPE, Prof. Dr. Burhan FERHANOĞLU, Assoc. Prof. Dr. Zafer BAŞLAR, Prof. Dr. Teoman SOYSAL, Prof. Dr. Meltem PEKPAK, Prof. Dr. Kamil SERDENGEÇTİ, Assoc. Prof. Dr. Süheyla APAYDIN, Prof. Dr. Yesari KARTER.			

### **Aims and Objectives:**

To provide a basic understanding of the biology and pathophysiology of systemic diseases, to incorporate diagnostic and therapeutic knowledge and skills throughout his/her career. Early lectures cover mostly bedside physical examination techniques and skills to recognize signs and symptoms of disease.

### **Course Contents:**

Pituitary pathophysiology, dysphagia, abdominal pain, diarrhea, constipation, cholestasis, thyroid pathophysiology, adrenocortical disorders, reproductive endocrinology, nutrition, obesity, basics of clinical oncology, diabetes mellitus, hemostasis, evaluation of coagulation, hypertension, fluid and electrolyte balance, evaluation of renal function.

### **Assessment Methods:**

Both oral examination 50% and written examination 50%.

### **Prerequisite / Recommended:**

Full attendance to the theoretical and bedside practical courses is required to take the final exams.

### **Text Book/Recommended Readings:**

- Harrison's Principles of Internal Medicine, 15<sup>th</sup> edition, Braunwald E, Fauci A, Kasper D, Hauser S, Longo D, Jameson D, McGraw-Hill, 2001.

## Medical Ethics and History of Medicine Academicals Advertisement

NAME of the COURSE: <b>MEDICAL ETHICS and HISTORY OF MEDICINE</b>			Course Code: e316
ECTS Credits: 2	Semester: 6 <sup>th</sup>	Undergraduate	Required
Hours: 28	Lectures: 2hours/week	Tutorials:	Language of the Course: English
Contact: Prof. Dr. Nil SARI; Dr. Yeşim ÜLMAN			

### Aims and Objectives:

The main objective of teaching medical ethics is to educate medical students to be conscious of ethical issues and to be ready to make ethical decisions in dilemmas to be confronted in clinical practice, and gain respect to the rights of patients and develop ethical relationships with their patients as well the other members of the health committee, and help them to comprehend the ethical virtues in their own character and the values they have, so as to be able to consider and respect their patients values, the aim of medical history courses are, to give a scientific approach to students in comprehending the evolution of medicine and prepare to question contemporary medicine so as to introduce new ideas, as well as to help students to gain a historical perspective in evaluating medical issues, and be conscious of the social aspect of medicine and hence understand the role of physicians in the society.

### Course Contents:

Description of morality and medical ethics, ethical theories; moral dilemmas, methods of ethical decision-making; principles of ethic, non-maleficence and non-treatment, beneficence, paternalism and quality of life decisions, justice and allocation of health care resources, autonomy, informed consent, incompetence and surrogate decision making, medical practitioner-patient relationship, rules of veracity, privacy, confidentiality, fidelity, virtue ethics; the concept of value, ethics committees, ethical concepts and conflicts regarding biomedical research, organ transplantation, the beginning and end of life, patient rights, malpractice, introduction to medical history, concepts of health and disease in the antique and middle ages, the development of scientific medicine, the evolution of preventive medicine, institutionalisation of medical education and health.

### Assessment Methods:

Courses 10%, Midterm 40%, Final Exam 60%

### Prerequisite:

- 1) 70% attendance to the courses
- 2) Participation in answering questions directed during courses
- 3) Final exam must be over 50%.

### Recommended:

5 Home works should be completed.

### Text Book/Recommended Readings:

- Principles of Biomedical Ethics. Tom L. Beauchamp, James F. Childress, 4<sup>th</sup> Ed., N.Y., 1994.
- Ethical Decisions in Medicine. Howard Brody, 2<sup>nd</sup> Ed., Boston, 1981.
- A Casebook of Medical Ethics. Terrence P. Ackerman, Carson Strong, N.Y., 1989.
- Encyclopaedia of Bioethics. Revised Ed., Ed. In Chief WT, Reich, NY, 1995.

### Specific System Pathology 1 Academicals Advertisement

NAME of the COURSE: <b>SPECIFIC SYSTEM PATHOLOGY 1</b>			Course Code: e317
ECTS Credits: 6	Semester: 6 <sup>th</sup>	Undergraduate	Required
Hours: 84	Lectures: 3 hours/week	Tutorials: Practical courses: 2hours/week Seminary and free work: 1 hour/week	Language of the Course: English
Contact: Prof. Dr. Sergülen DERVİŞOĞLU, Prof. Dr. Gülşen ÖZBAY, Prof. Dr. Cüyan DEMİRKESEN			

#### Aims and Objectives:

The objective and aim of the specific pathology is to make acquainted with the basic pathologic changes and lesions on tissues and organs related to specific diseases on various organ systems. The students are trained to interrogate the end results of the dynamic changes in cells, and effects of etiologic causes on organ systems in order to make them understand the nature of the disease. Giving the scientific approaches to the students using diseased organ specimens related to systematic organ systems, it is thought to deal with the lesions, structural changes and end result of the disease those never met before at morphological (macroscopic and microscopic) level and handle them the idea that all incidents in living structures are based on structural phenomenon instead of random and fate. Help students to see different aspects of a disease and to gain new perspectives and approaches in understanding the disease process itself and dealing with problems those still waiting to be solved in medicine.

#### Course Contents:

Normal vasculature and arteriosclerosis, vasculitis, aneurysms and tumours, heart failure, ischemic heart disease and myocardial infarction, hypertensive heart disease, rheumatic fever and rheumatic heart disease, infective endocarditis and valvular heart disease, congenital heart disease, myocardial and pericardial diseases, tumours, pathology of upper airways, atelectasis, diseases of vascular origin in lung, pulmonary infections, obstructive and restrictive pulmonary diseases, lung tumours inflammation and neoplastic lesions of oral cavity and salivary glands, anatomic, gastritis and gastric ulcerations, tumours of esafagus and stomach, developmental anomalies of small and large bowels, enterocolitis, malabsorption syndromes, idiopathic inflammatory bowel diseases, vascular disorders of bowel, bowel obstruction and appandicitis, tumours of small and large bowels and appendix, acute and chronic pancreatitis, cystic fibrosis and tumours of pancreas, diabetes mellitus, hepatitis, alcoholic liver diseases, cirrhosis, alcoholic liver diseases, cirrhosis, liver tumours, developmental abnormalities of the kidneys, pathogenesis of glomerulonephritis, primary types of glomerulonephritis, secondary forms of glomerulonephritis, acute tubular necrosis and pyelonephritis, hydronephrosis, tumours of the kidney, pathology of male genital system.

#### Assessment Methods:

Courses 10%, Midterm 30%, Final Exam 60%.

#### Prerequisite:

70% attendances of the lectures are required.

For the entrance of the final exam 5 of 11 courses must be completed.

Final exam must over 50%.

At least 50 out of 100 must be scored in order to take oral final exam on organ specimens.

#### Recommended:

For the courses preliminary study required.

#### Text Book / Recommended Readings:

- Pathologic Basis of Diseases. Vine Kumar, Abul K Abbas, Nelson Fausto 7th edition, Elsevier Saunders Philadelphia, 2005.
- Pathology. Emanuel Rubin, John L. Farber. 3rd edition, Lippincott-Raven Philadelphia, New York 1999.

**4. YEAR  
PRECLINICAL UNIT**

**7. SEMESTER (30 ECTS Credits)**

**Internal Medicine 2 Academics Advertisement**

NAME of the COURSE: <b>INTERNAL MEDICINE 2</b>		Course Code: e477
ECTS Credits: 2	Semester: 7 <sup>th</sup>	Undergraduate
Hours: 28	Lectures: 2 Hours/week	Tutorials: Language of the Course: English
Contact: Prof. Dr. Fuat DEMİRELLİ, Assoc. Prof. Dr. Gökhan DEMİR, Assoc. Prof. Dr. Mustafa ÖZGÜROĞLU, Prof. Dr. Kamil SERDENGEÇTİ, Assoc. Prof. Dr. Süheyla APAYDIN, Prof. Dr. Meltem PEKPAK, Assoc. Prof. Dr. Pınar KADIOĞLU, Prof. Dr. Uğur GÖRPE, Prof. Dr. Ertuğrul TAŞAN, Prof. Dr. Zeynep OŞAR, Prof. Dr. Volkan YUMUK, Assoc. Prof. Aykut Ferhat ÇELİK, Prof. Dr. Ahmet DOBRUCALI, Assoc. Prof. Dr. Zafer BAŞLAR, Prof. Dr. Burhan FREHANOĞLU, Prof. Dr. Teoman SOYSALI, Assoc. Prof. Dr. İzzet FRESKO, Prof. Dr. Deniz Suna ERDİNÇLER, Prof. Dr. Yesari KARTER, Prof. Dr. Hakan ŞENTÜRK		

**Aims and Objectives:**

To provide a basic understanding of the biology and pathophysiology of systemic diseases, to incorporate diagnostic and therapeutic knowledge and skills throughout his/her career. Early lectures cover mostly bedside physical examination techniques and skills to recognize signs and symptoms of disease.

**Course Contents:**

Cytotoxic chemotherapy, paraneoplastic syndromes, screening and early diagnosis in cancer, fluid and electrolyte disorders, disorders of acid-base balance, calcium metabolism, lipoprotein metabolism, euthyroid goiter, type I and type II diabetes mellitus, gastroesophageal reflux disease, peptic ulcer, gastritis, malabsorption, inflammatory bowel disease, classification of anemias, anemia of chronic disease, megaloblastic anemias, iron deficiency anemia, hemolytic anemias, laboratory in rheumatoid disorders, epidemiology of rheumatoid disorders, morphologic and functional changes in the elderly, pulmonary manifestations of systemic disease, metabolic liver disease, toxic hepatitis.

**Assessment Methods:**

Both oral examination 50% and written examination 50%.

**Prerequisite / Recommended:**

Full attendance to the theoretical and bedside practical courses is required to take the final exams.

**Text Book/Recommended Readings:**

- Harrison's Principles of Internal Medicine, 15<sup>th</sup> edition, Braunwald E, Fauci A, Kasper D, Hauser S, Longo D, Jameson D, McGraw-Hill, 2001.

## Specific system pathology 2

NAME of the COURSE: <b>SPECIFIC SYSTEM PATHOLOGY 2</b>			Course Code: e478
ECTS Credits: 4	Semester: 7 <sup>th</sup>	Undergraduate	Required
Hours: 56	Lectures: 2 hours/week	Tutorials: Courses: 2 hours/week	Language of the Course: English
Contact: Prof. Dr. Sergülen DERVİŞOĞLU, Prof. Dr. Gülşen ÖZBAY, Prof. Dr. Gülen DOĞRUSOY, Assoc. Prof. Dr. Sibel ERDAMAR			

### Aims and Objectives:

The objective and aim of the specific pathology is to make acquainted with the basic pathologic changes (knowledge of the disease) and lesions on tissues and organs related to specific diseases on various organ systems. The students, are trained to interrogate the end results of the dynamic changes in cells, and effects of etiologic causes on organ systems and to make them understand the nature of the disease. Giving the scientific approaches to the students using diseased organ specimens related to systematic organ systems, it is thought to deal with the lesions, structural changes and end result of the disease those never met before at morphological (macroscopic and microscopic) level and handle them the idea that all incidents in living structures are based on structural phenomenon instead of random and fate. Help students to see different aspects of a disease and to gain new perspectives and approaches in understanding the disease process itself and dealing with problems those still waiting to be solved in medicine.

### Course Contents:

Pathology of the vulva, vagina and the cervix -pathology of the endometrium and myometrium-pathology of the ovary and placenta-pathology of the breast-endocrine system-thyroid-pituitary and parathyroid glands -general approach to inflammatory skin diseases-general approach to neoplastic skin diseases-pathology of adrenal cortex and medulla-fracture and healing of fracture, bone infections-diseases due to metabolic dysfunction-bone tumours-joint diseases-aplastic anaemia and myelodysplastic syndrome-introduction to chronic myeloproliferative disorders: polystemia vera and essential thrombocytemia-chronic myeloid leukaemia, idiopathic myelofibrosis-acute leukemias-plasma cell dyscrasias-nonhodgkin lymphomas, clinico-pathologic correlations-Hodgkin's disease-cellular pathology of CNS, cerebral oedema, raised intracranial pressure-cellular pathology of CNS, cerebral oedema, raised intracranial pressure-cerebrovascular diseases-meningitis and encephalitis-demyelisation and degenerative diseases-tumours of CNS.

### Assessment Methods:

Courses 10%, Midterm 30%, Final Exam 60%.

### Prerequisite:

70% attendances of the lectures are required.

For the entrance of the final exam 5 of 11 courses must be completed.

Final exam must over 50%.

At least 50 out of 100 must be scored in order to take oral final exam on organ specimens.

### Recommended:

For the courses preliminary study required.

### Text Book / Recommended Readings:

- Pathologic Basis of Diseases.Vinay Kumar, Abul K Abbas, Nelson Fausto 7th edition Elsevier Saunders Philadelphia, 2005.
- Pathology. Emanuel Rubin, John L. Farber. 3rd edition Lippincott-Raven Philadelphia, New York 1999.

## Clinical Pharmacology 1 Academicals Advertisement

NAME of the COURSE: <b>CLINICAL PHARMACOLOGY 1</b>			Course Code: e479
ECTS Credits: 3	Semester: 7 <sup>th</sup>	Undergraduate	Required
Hours: 42	Lectures: 3 hours/week	Tutorials:	Language of the Course: English
Contact: Prof. Dr. Cihat KÜÇÜKHÜSEYİN, Prof. Dr. Aydın BARLAS, Prof. Dr. Öner SÜZER, Prof. Dr. Zeliha YAZICI			

### **Aims and Objectives:**

Giving basic and clinical knowledge about autonomic nervous system pharmacology cardiovascular pharmacology and autocooids.

### **Course Contents:**

Autonomic nervous system pharmacology, Cardiovascular system pharmacology, autocooids, antihyperlipidemics diuretics, nonsteroidal anti-inflammatory agents

### **Assessment Methods:**

Midterm 40%, Final Exam 60%

Multiple choice test questions, Grades are given according to Gauss distribution.

### **Prerequisite/ Recommended:**

- Katzung Basic and Clinical Pharmacology (Bertram G. Katzung. 9<sup>th</sup> Edition, Lange Medical Books/McGraw-Hill 2004), Dales Pharmacology (HP Rang, MM Dale, JM Ritter, PK Moore. 5<sup>th</sup> Edition, Churchill Livingstone 2003).

## 8. SEMESTER (30 ECTS Credits)

### Clinical Pharmacology 2 Academics Advertisement

NAME of the COURSE: <b>CLINICAL PHARMACOLOGY 2</b>			Course Code: e484
ECTS Credits: 4	Semester: 8 <sup>th</sup>	Undergraduate:	Required
Hours: 56	Lectures: 4 hours/week	Tutorials:	Language of the Course: English
Contact: Prof. Dr. Öner SÜZER			

**Aims and Objectives:**

Giving basic and clinical knowledge about central nervous system pharmacology hematopoietic system pharmacology gastrointestinal system pharmacology respiratory pharmacology and endocrine pharmacology.

**Course Contents:**

Central nervous system pharmacology, anxiolytics antidepressives neuroleptics etc, opioid analgesics, drugs of abuse, drugs used in gastrointestinal diseases, drugs used in hemopoietic diseases, drugs used in respiratory diseases, endocrine system pharmacology.

**Assessment Methods:**

Midterm %40, Final exam %60

Multiple choice test questions, grades are given according to Gauss distribution.

**Prerequisite/ Recommended:****Text Book/Recommended Readings:**

- Katzung Basic and Clinical Pharmacology (Bertram G. Katzung. 9<sup>th</sup> Edition, Lange Medical Books/McGraw-Hill 2004.
- Dales Pharmacology HP Rang, MM Dale, JM Ritter, PK Moore. 5<sup>th</sup> Edition, Churchill Livingstone 2003.

## Clinical Anatomy Academicals Advertisement

NAME of the COURSE: <b>CLINICAL ANATOMY</b>			Course Code: e486
ECTS Credits: 2	Semester: 8 <sup>th</sup>	Undergraduate	Required
Hours: 28	Lectures: 4hours/week	Tutorials:	Language of the Course: English
Contact: Prof. Dr. Derya ERTEM, Prof. Dr. Kaya ÖZKUŞ, Assoc. Prof. Dr. Tania MARUR.			

**Aims and Objectives:**

Gross anatomy of the human body with its function and clinical aspects.

**Course Contents:**

Clinical anatomy of locomotor system, radiological anatomy of locomotor system, clinical anatomy of cardiovascular system, clinical anatomy of respiratory system, clinical anatomy of urinary system, clinical anatomy of genital system, radiological anatomy of respiratory and urogenital, usg anatomy, clinical anatomy digestive system, clinical anatomy abdomen and digestive system, radiological anatomy of digestive system, clinical neuroanatomy, neuroradiological anatomy, application of practical surgery and endoscopy.

**Assessment Methods:**

Midterm 40%, Final Exam 60%

**Prerequisite:**

70% attendances of the lectures are required.

Final exam must over 50%.

**Recommended:****Text Book/Recommended Readings:**

- Snell R.S. Clinical anatomy for medical students, 6<sup>th</sup> ed. Lippincot –Raven, Philadelphia, 2000.
- Snell R.S. Clinical Neuroanatomy for Medical Students. 4<sup>th</sup> edition. Lippincot –Raven, Philadelphia, 1997
- Putz R, Pabst R. Sobotta atlas of Human Anatomy Vol 1,2. Urban & Schwarzenberg, Munich, 1994.
- Moore KL, Dalley AF. Clinically Oriented Anatomy. 4<sup>th</sup> ed. Lippincott Williams & Wilkins, Baltimore, 1999.

## Cardiology Academicals Advertisement

NAME of the COURSE: <b>CARDIOLOGY</b>			Course Code: e488
ECTS Credits: 1	Semester: 8 <sup>th</sup>	Undergraduate:	Required
Hours: 14	Lectures: 1 hour/week	Tutorials:	Language of the Course: English
Contact: Prof. Dr. Işık BAŞAR, Prof. Dr. Sedat. TAVŞANOĞLU, Prof. Dr. Barış İLERİGELEN, Prof. Dr. Zeki ÖNGEN, Prof. Dr. Serap. ERDİNE, Prof. Dr. Hakan KARPUZ, Prof. Dr. Seçkin PEHLIVANOĞLU, Prof. Dr. Lale. KOLDAŞ			

### **Aims and Objectives:**

Introduction to cardiac diseases: To give the theoretical basic of the most common heart diseases and examination methods used in the diagnosis of these diseases

### **Course Contents:**

Cardiac radiology, tachycardias, non-invasive diagnostic methods in cardiology, cardiac catheterisation, ectopic beats and conduction disturbances, presyncope, syncope, sudden death and resuscitation, rheumatic fever, valvular heart disease 1-2, infective endocarditis, pericardial disease, introduction to acute coronary syndromes, cardiogenic shock.

### **Assessment Methods:**

Written multiple-choice test.  
Midterm 40%, Final Exam 60%  
Final examination must over %50.

### **Prerequisite/ Recommended:**

Attendance to %70 of lectures and %80 bedside tutorials are obligatory.

### **Text Book/Recommended Readings:**

- Harrison's Principles of Internal Medicine, 16<sup>th</sup> eds. Kasper L.D. Brawnwald Favci. A. Hauvers Hongo D. Jameson J.L. Mc Graw-Hill 2005.
- Cecil's textbook of Medicine eds. Goldman L, Ausiello D. 22<sup>nd</sup> edition Saunders 2004.

### Internal Medicine 3 Academics Advertisement

NAME of the COURSE: <b>INTERNAL MEDICINE 3</b>		Course Code: e490
ECTS Credits: 2	Semester: 8 <sup>th</sup>	Undergraduate
Hours: 28	Lectures: 2 Hours/week	Tutorial
Contact: Assoc. Prof. Dr. Pınar KADIOĞLU, Prof. Dr. Ertuğrul TAŞAN, Prof. Dr. Volkan YUMRUK, Prof. Dr. Uğur GÖRPE, Prof. Dr. Evin BÜYÜKÜNAL, Assoc. Prof. Dr. Mustafa ÖZGÜROĞLU, Assoc. Prof. Dr. Zafer BAŞLAR, Prof. Dr. Teoman SOYSAL, Prof. Dr. Meltem PEKPAK, Prof. Dr. Ali MERT, Assoc. Prof. Dr. Süheyla APAYDIN, Prof. Dr. Recep ÖZTÜRK, Prof. Dr. Kamil SERDENGEÇTİ.		Language of the Course: English

#### **Aims and Objectives:**

To provide a basic understanding of the biology and pathophysiology of systemic diseases, to incorporate diagnostic and therapeutic knowledge and skills throughout his/her career. Early lectures cover mostly bedside physical examination techniques and skills to recognize signs and symptoms of disease.

#### **Course Contents:**

Peptic ulcer disease, GI bleeding, chronic myeloproliferative diseases, aplastic anemia, portal hypertension, infections of the CNS, Rabies, Tetanus, Congenital haemolytic anemias, acquired haemolytic anemias, hyperthyroidism, hypothyroidism, adrenocortical function, thyroid cancer, hypoglycemia, acute and chronic complications of DM, oncologic emergencies, renal tubular disorders, cancer pain, urinary infection, nephritic and nephrotic syndrome, renal failure.

#### **Assessment Methods:**

Both oral examination 50% and written examination 50%.

#### **Prerequisite/Recommended:**

Full attendance to the theoretical and bedside practical courses is required to take the final exams.

#### **Text Book/Recommended Readings:**

- Harrison's Principles of Internal Medicine, 15<sup>th</sup> edition, Braunwald E, Fauci A, Kasper D, Hauser S, Longo D, Jameson D, McGraw-Hill, 2001.

## 7-8. SEMESTER COURSES

### General Surgery Academicals Advertisement

NAME of the COURSE: <b>GENERAL SURGERY</b>			Course Code: e451/e452
ECTS Credits: 6	Semester: 7-8	Undergraduate	Required
Hours: 114	Lectures: 42 hours in 7 week	Tutorials: Courses: 72 hours in 7 week	Language of the Course: English
Contact: Prof. Dr. Serdar YÜCEYAR, Prof. Dr. Süphan ERTÜRK, Prof. Dr. Hilal ÜNAL, Prof. Dr. Olcay ALVER, Prof. Dr. Ümit BALCISOY, Prof. Dr. Ceyhun ORAL, Yusuf ÇİÇEK, Prof. Dr. Asiye PEREK, Prof. Dr. Mete DÜREN, Prof. Dr. Varol ÇELİK, Assoc. Prof. Dr. İsmail HAMZAOĞLU, Assoc. Prof. Melih PAKSOY, Assoc. Prof. Berat APAYDIN, Assoc. Prof. Ertuğrul GAZİOĞLU.			

#### **Aims and Objectives:**

After the completion of basic information about various surgical diseases in previous semesters, 7th semester program provides essential knowledge about surgical aspects of illness, preparation for surgical procedures, surgical and multidisciplinary treatment, postoperative care, and surgical complications to the extent that they contribute to patient care. Practical course and rounds are organized to provide an interactive, problem-based learning opportunity. In this manner, basic surgical skills, further learning and clinical practice are aimed to intensify.

#### **Course Contents:**

Preoperative assessment and special problems of patients, fluid and electrolyte therapy, acid-base disorders, homeostasis and transfusion, shock, wound healing and the management of complications, intestinal fistulas, abdominal injuries, benign disease of the oesophagus (motility disorders perforations costic injuries, intraabdominal infections (peritonitis, abscesses and appendicitis included), tumours of the liver, intestinal obstructions, obstructive jaundice portal hypertension, oesophageal tumours (benign and malign), peptic ulcer diseases, acute and chronic pancreatitis, acute abdomen, perianal abscess and fistulas, acute appendicitis, surgical diseases of the spleen, gastro oesophageal reflux and hiatal hernia, endocrine tumours of the pancreas, benign diseases of the breast, acute and chronic cholecystitis, abscess and cyst of the liver, hernias pancreatic cancer, tumours of the stomach bile duct disorders (cholangitis, tumours) haemorrhoids and anal fissure, inflammatory bowel diseases, breast cancer transplantation, mesenteric vascular disease, thyroid diseases post-gastrectomy and post-vagotomy complications, carcinoma of the colon and rectum, upper gastrointestinal bleeding, thyroid cancer, adrenal diseases, lower gastrointestinal bleeding, surgical oncology, breast surgery, hydatid disease of the liver.

#### **Assessment Methods**

Accomplishment of a theoretical and a clinical assignment (40 %), final exam (60 %).

#### **Prerequisite**

80 % attendance of the courses and 70 % attendance of the lectures are required.

Final exam must be over 50%.

#### **Text Book / Recommended Reading**

- Current Surgical Diagnosis and Treatment, Lawrence W. Way, Gerard M. Doherty. Lange Medical Books / Mc Graw- Hill, 2003
- Schwartz's Principles of Surgery. Seymour I. Schwartz, F. Charles Brunicaudi, Dana K. Andersen, Timothy R. Billiar, David L. Dunn, John J. Hunter, Raphael E. Pollock. Mc Graw- Hill Publishing division, 2005.

## Clinical Neurosurgery Academicals Advertisement

NAME of the COURSE: <b>CLINICAL NEUROSURGERY</b>			Course Code: e453/e454
ECTS Credits: 1	Semester: 7-8	Undergraduate	Required
Hours: 22	Lectures: 7hours in 7 weeks	Tutorials: Bedside practical course: 15 hours in 7 weeks	Language of the Course: English
Contact: Prof. Dr. Cengiz KUDAY, Prof. Dr. Emin ÖZYURT, Prof. Dr. Bülent CANBAZ, Prof. Dr. Pamir ERDİNÇLER, Assoc. Prof. Dr. Mehmet Yaşar KAYNAR, Assoc. Prof. Dr. Halil AK, Assoc. Prof. Dr. Mustafa UZAN			

### **Aims and Objectives:**

The aims of the course are to develop student's knowledge base and skills in clinical neurosurgery so that they can successfully complete their medical training and become capable and competent in their professional life. The course of training includes clinical neurosurgery together with aspects of the basic neurosciences directly related to clinical practice. The major emphasis is on clinical knowledge and the development of clinical skills for neurosurgery. The course also aims to offer a detailed introduction to the methods and results of modern clinical neurosurgery.

### **Course Contents:**

History taking, physical examination, neurological examination, assessment of a patient with head and spine injury, brain tumours (benign, skull base, malignant, metastatic, pituitary, neuroendocrine), pediatric neurosurgery, cerebrovascular surgery, epilepsy surgery, adult hydrocephalus, neurocritical care, stroke, neuroendoscopy; peripheral nerve surgery, minimally invasive surgery, spine and spinal cord tumours, spinal instrumentation, disc herniations.

### **Assessment Methods:**

Courses 40%, Final Exam 60%.

### **Prerequisite:**

Attendances 70% of the lectures are required.

For the entrance of the final exam 50% of courses must be completed.

Final exam must over 50%.

### **Recommended:**

For the courses preliminary study required.

### **Text Book/Recommended Readings:**

- Handbook Of Neurosurgery Greenberg. S. H. (ed.) Lakeland, Fla: New York: Greenberg Graphics Thieme Medical Publishers, 2001.
- Neurology and Neurosurgery Illustrated, 4th edition. Kenneth W. Lindsay (ed.) Churchill Livingstone Published February 2004.

## Gynecology and Obstetrics Academicals Advertisement

NAME of the COURSE: <b>GYNECOLOGY AND OBSTETRICS</b>			Course Code: e455/e456
ECTS Credits: 7	Semester: 7-8	Undergraduate	Required
Hours: 144	Lectures: 60 hours in 7 weeks	Tutorials: Course: 84 hour in 7 weeks	Language of the Course: English
Contacts: Prof Dr. Feridun AKSU, Prof Dr. Vildan OCAK, Prof Dr. Sezai ŞAHMAY, Prof Dr. Tarık ALTINOK, Prof Dr. Fuat DEMİRKESEN, Prof Dr Rıza MADAZLI, Prof Dr. Cihat ŞEN, Prof Dr: Tamer EREL, Prof Dr. Tugan BEŞE, Prof Dr. Semih KALELİ, Prof Dr. Engin ORAL, Prof Dr. Levent ŞENTÜRK			

### Aims and Objectives:

Obstetrics and gynecology is an exceptional branch of medicine acted by the dawn of human being its historical highlights physiology, morphology, genetics and pathophysiology, pathology, disease definition, incidences. The aim and objective of this course is to teach the students high level of obstetrics and gynecology at preinternship period.

### Course Contents:

Historical highlights of Obstetrics and Gynecology, introduction to obstetrics and its subdivisions, embryology and developmental defects of female reproductive tract, genetics in relation of obstetrics & gynecology, gross and microscopic anatomy, menstrual cycle and its neuroendocrine control, puberty and its disorders, adolescence, adulthood, climacterium, senilium menopause and its management, the patient history, physical examination and methods, physiology and development of fetus and adnexes, maternal physiology throughout pregnancy, abortion and early pregnancy losses, abnormality of placenta, membranes and fetus, trophoblastic diseases, bleeding in late pregnancy, hemolytic disease of newborn, diabetes in pregnancy, toxemia in pregnancy, coincidental medical disorders during pregnancy, multifetal gestation, assessment of fetal well-being and its methods, mechanism and conduct of labor, newborn resuscitation, premature labor and chorioamnionitis, management of premature infant and ill fetus throughout pregnancy, dystocia fetopelvic dysproportion, abnormal uterine action of labor, other complications and shock, breech, deflexion presentation and transverse lying, birth injuries obstetric operations, ultrasonography and radiology, puerperium, infections of reproductive tract and sexually transmitted diseases, structural defects, lacerations, procidentia, pelvic support defects, urodynamics, fistulas etc., disorders of menstruation and other gynecologic endocrine disorders, hirsutism and PCOD, infertility- diagnostic and therapeutic aspects, assisted reproductive techniques, benign lesions of vulva, vagina and cervix, benign lesions of uterus, tubes and ovaries, gynecologic cytopathology and general aspects of cancerology, malignant lesions of vulva, vagina, cervix, corpus, fallopian tubes and ovaries, operative gynecology and endoscopy and its role in gynecological operations, family planning.

### Assessment Methods:

Midterm 40%, Final Exam 60%.

### Prerequisite:

- 1) 70% attendances of the lectures are required.
- 2) For the entrance of the final exam 15 courses must be completed.
- 3) Final exam must over 50%.

### Recommended:

For the courses preliminary study required. Very important advised to the student, every course must be revised and read from reference books after each lesson given.

### Text Book/Recommended Readings:

- Danfort Obstetrics and Gynecology, David N. Danforth, Lippincott Williams & Wilkins 1999.
- Novak's Gynecology, 12 Editions. Williams & Wilkins, Baltimore, 1998.
- Telinde Operational Gynecology John Rock, Lippincott Williams & Wilkins, 2003.

## Ear, Nose and Throat Surgery Academics Advertisement

NAME of the COURSE: <b>EAR, NOSE AND THROAT SURGERY</b>			Course Code: e457/e458
ECTS Credits: 3.5	Semester: 7-8	Undergraduate	Required
Hours: 75	Lectures: 30 hours in 3.5 weeks	Tutorials: 45 hours in 3.5 weeks	Language of the Course: English
Contact: Prof. Dr. Özgün Enver, Prof. Dr. Ahmet GÖKÇEL, Prof. Dr. Yalçın ORAN, Prof. Dr. Tahir ALTUĞ, Prof. Dr. Hüsnü ÖZEK, Prof. Dr. İrfan DEVRANOĞLU, Prof. Dr. Cengiz YAĞIZ, Prof. Dr. Asım KAYTAZ, Prof. Dr. Salih ÇANAĞCIOĞLU, Prof. Dr. Nazım KORKUT, Prof. Dr. Ferhan ÖZ, Prof. Dr. İrfan PAPİLA, Prof. Dr. Ahmet ÖZDOĞAN, Prof. Dr. Mehmet ADA, Prof. Dr. Murat TOPRAK, Prof. Dr. Harun CANSIZ, Assoc. Prof. Dr. Fatih Öktem, Assoc. Prof. Dr. Doğan ŞENOCAK.			

### Aims and Objectives:

To educate and bring up the successful doctors of the next generations, we also provide the necessary free atmosphere for the academicians, who really have the spirit of a researcher. Introduce common problems of ear nose and throat.

### Course Contents:

Anatomy and physiology of the nose and paranasal sinuses, diseases and tumours of the hypo pharynx, ENT propedeutics headache and neuralgias, anatomy and physiology of the pharynx, non-infectious diseases of the middle ear, infectious diseases of the paranasal sinuses, anatomy and physiology of the larynx, non-vestibular diseases of the inner ear, anatomy and physiology of the ear sudden hearing loss (1)-(2) in ENT diseases, neoplasms of the skull base and cranial nerve involvement facial paralysis malignant tumours of the larynx, external and middle ear neoplasms and traumas, ENT and allergy, infectious diseases of the larynx, epistaxis and nasal trauma, diseases of the external ear and ear drum infectious diseases of the middle ear, benign tumours of the larynx, tracheotomy and airway obstruction (osas), complications of chronic otitis media, nasopharyngeal neoplasms, tumours of the nose and paranasal sinuses, laryngeal paralysis, foreign body in trachea, bronchi and oesophagus, neck mass and deep cervical infections, diseases of the salivary glands laryngeal changes in systemic diseases and laryngeal trauma, neoplasms of the oral cavity and oropharynx, physiology and diseases of the vestibular system (1), diseases of the external nose and nasal cavity, ENT's scope on oesophageal diseases, physiology and diseases of the vestibular system, non-tumoral diseases of the oral cavity and oropharynx, ENT's scope on thyroid and parathyroid diseases, audio-visual demonstration, oral examination written examination.

### Assessment Methods

Attendance obligation is performed for the theoretical lessons (maximum 1 day or 3 hours enquiry failing).

Attendance obligation is performed for the practical lessons.

### Prerequisite

Assessment of the final examination: 40% of the oral examination 60% of the final test.

### Text Book / Recommended Reading

- Diseases of the Sinuses Diagnosis and Management. David W. Kennedy, William E. Bolger, S. James Zinreich, B.C. Decker Inc. London, 2001.
- Ballenger's Otorhinolaryngology Head and Neck Surgery. 16 Edition, James B. Snow Jr, John Jacob Ballenger, BC Decker Inc, Ontario L8N 3K7, ISBN 1-55009-197-2 Spain 2002.
- Surgery of the Ear 5. Edition, Michael E. Glasscock, Aina Julianna Gulya, BC Decker Inc, ISBN 1-55009-151-4, Spain, 2003.

## Ophthalmology Academics Advertisement

NAME of the COURSE: <b>OPHTHALMOLOGY</b>			Course Code: e459/e460
ECTS Credits: 3.5	Semester: 7-8	Undergraduate	Required
Hours: 70	Lectures: 36 hours in 3.5 weeks	Tutorials: 34 hours in 3.5 weeks	Language of the Course: English
Contact: Prof. Dr. Halit PAZARLI, Prof. Dr. Ufuk YIĞITSUBAY, Prof. Dr. Nevbahar TAMÇELİK, Prof. Dr. Yılmaz ÖZYAZGAN, Prof. Dr. Solmaz AKAR, Prof. Dr. Emel BAŞAR, Prof. Dr. Osman ARSLAN, Prof. Dr. Özcan OCAKOĞLU, Assoc. Prof. Dr. Cengiz ARAS, Assoc. Prof. Dr. Akif ÖZDAMAR, Assoc. Prof. Dr. Kemal DİKİCİ, Assoc. Prof. Dr. Rengin YILDIRIM			

### **Aims and Objectives:**

To give some idea about the basic principals of and recent developments in ophthalmology. To give clues about, how to approach red eye, painful eye, sudden monocular and binocular visual loss among different age groups. At the end of the courses, the future physicians must be familiar with the common eye diseases when they should refer the patients to an ophthalmologist as a general practitioner.

### **Course Contents**

Anatomy and physiology of the eye, lens disorders, conjunctiva disorders, lid disorders, refractive errors, corneal disorders, diabetic retinopathy, disorders of the lachrymal apparatus, vitreous disorders, macular disorders, strabismus, intraocular tumours, refractive surgery, ocular injuries, orbital disorders, red eye, chronic open-angle glaucoma, paralytic strabismus, nystagmus, contact lens, retinal vascular disorders, other than diabetic retinopathy, disorders of the optic nerve, retinal detachment, congenital glaucoma, disorders of uvea, acute glaucoma, sudden visual loss.

### **Assessment Methods:**

Verbal and written exam. Fifty percent weigh each.

### **Text Book / Recommended Reading:**

- Manual Ocular Diagnosis and Therapy, Deborah Pavan-Langston 5<sup>th</sup> ed Lippincott Williams & Wilkins, 2002.
- Clinical Ophthalmology A. Synopsis, Jack J. Kanski, Elsevier UK 2004.

## Orthopaedics and Traumatology

NAME of the COURSE: <b>ORTHOPAEDICS AND TRAUMATOLOGY</b>			Course Code: 461/e462
ECTS Credits: 3	Semester: 7-8	Undergraduate	Required
Hours: 62	Lectures: 32 hours in 3.5 weeks	Tutorials: 30 hours in 3.5 weeks	Language of the Course: English
Contact: Prof. Dr. Yüksel TENEKECIOĞLU, Prof. Dr. Nail KIR, Prof. Dr. Nafiz BILSEL, Prof. Dr. Nejat GÜNEY, Prof. Dr. Muharrem BABACAN, Prof. Dr. Rifat ERGINER, Prof. Dr. Murat HIZ, Prof. Dr. Tuncay CENTEL, Prof. Dr. Işık AKGÜN, Assoc. Prof. Dr. Önder AYDINGÖZ, Assoc. Prof. Dr. Fahri ERDOĞAN.			

### **Aims and Objectives:**

To cover the basic principles of diagnosis and treatment of musculoskeletal problems including trauma, infections, tumours, degenerative disorders, developmental and congenital diseases.

### **Course Contents**

Classification and symptoms of fractures, fracture healing, open fractures, complications of fractures, fractures of children, spinal injuries, injuries of the upper and lower extremity, vertebral deformities, extremity deformities, benign and malignant bone and soft tissue tumours, degenerative joint diseases, bone and joint infections.

### **Assessment Methods**

Final exam (Written: 50%, Oral 50%).

### **Text Book / Recommended Reading**

- Skinner HB (ed) Current Diagnosis and Treatment in Orthopaedics, Lange Medical Books, Mc Graw Hill, 2000.

## Physical Therapy and Rehabilitation Academicals Advertisement

NAME of the COURSE: <b>PHYSICAL THERAPY and REHABILITATION</b>			Course Code: e463/e464
ECTS Credits: 3	Semester: 7-8	Undergraduate	Required
Hours: 59	Lectures: 24 hours in 3.5 weeks	Tutorials: 35 hours in 3.5 weeks	Language of the Course: English
Contact: Prof. Dr. Halil KOYUNCU, Prof. Dr. Hidayet SARI, Prof. Dr. Ülkü AKARIRMAK, Prof. Dr. Şafak KARAMEHMET, Prof. Dr. Şansın TÜZÜN, Assoc. Prof. Dr. Halil ÜNALAN.			

### **Aims and Objectives:**

General knowledge about rehabilitation, disability methods of physical therapy common painful diseases like osteoarthritis, disc herniation etc.

### **Course Contents:**

Physical examination locomotor system, introduction to physical therapy and rehabilitation, physical examination, degenerative joint disease (ostearthritis), cervical and lumbar disc herniation, inflammatory rheumatic disease and rehabilitation, seronegative spondyloarthropathies, physical and therapeutic effects of heat and cold orthopedic rehabilitation, soft tissue rheumatism, osteopenic diseases, cervical and lumbar spondylosis, methods of physical therapy, neurologic rehabilitation, therapeutic exercises, muscle testing.

### **Assessment Methods:**

Written examination in test form 60%, oral examination 40%.

### **Prerequisite/Recommended:**

70% attendance of the lectures is required Grades are given according to Gauss distribution

### **Text Book/Recommended Readings:**

- Braddom's Physical Medicine and Rehabilitation; WB. Saunders Company, Philadelphia Eds. Ramdall L. Braddon Second Edition 2002.

## Urology Academics Advertisement

NAME of the COURSE: <b>UROLOGY</b>			Course Code: e465/e466
ECTS Credits: 4	Semester 7-8 <sup>th</sup>	Undergraduate	Required
Hours: 54	Lectures: 34 hours in 3.5 weeks	Practice: 50 hours in 3.5 weeks	Language of the Course: English
Contact: Prof Dr. Armağan ÖNER, Prof Dr. Ali Rıza KURAL, Prof Dr. Ahmet ERÖZENCİ, Prof Dr. Bülent ÇETİNEL, Prof Dr. Emre AKKUŞ, Prof Dr. Süleyman ATAUS, Prof Dr. Hamdi ÖZKARA, Prof Dr. Bülent ALICI, Assoc. Prof. Dr. Can ÖBEK.			

### **Aims and Objectives:**

Introduction of frequent urologic diseases in the public and teaching and hands-on learning in order to achieve the best approach for these problems. Practices are physical examination, urinary catheterisation, rectal examination are performed. Modern urological techniques such as endoscopies, andrological urodynamy, transurethral surgical procedures laparoscopic and open surgeries should be observed

### **Course Contents:**

Physical examination and symptomatology in urology, sexually transmitted diseases, urological imaging methods, kidney tumours, ureterial tumours, BPH, urinary obstruction, vesicourethral reflux (VUR), genital system non-specific, infections, erectile dysfunction, cystic diseases of the kidney, miction physiology and neurourology, urinary tract infections, male infertility, prostate cancer, urinary stone disease, testicular tumours, female urology and incontinence, intrascrotal diseases, uro-genital system anomalies

### **Assessment Methods**

Classic written exam: weight in total score 60%

Oral exam: weight in total score 40%

### **Prerequisite**

80% attendances of the lectures are required.

Practice of physical examination, urinary catheterisation, rectal examination should be performed.

### **Text Book / Recommended Reading**

- Smith's General Urology, sixteenth edition, Emil A. Tanagho and Jack W. McAninch (editors), International edition, The McGraw-Hill Companies, Lange Medical Book, 2004.
- Campbell's Urology (Study Guide). Second edition. Patrick C. Walsh. Alan Retik. E. Darracott Vaughan. Alan J. Wein. W.B. Saunders 2000.

### Psychiatry Academicals Advertisement

NAME of the COURSE: <b>PSYCHIATRY</b>			Course Code: 467/e468
ECTS Credits: 4.5	Semester: 7-8	Undergraduate	Required:
Hours: 75	Lectures: 25 hours in 3.5 weeks	Tutorials: 50 hours in 3.5 weeks	Language of the Course: English
Contact: Prof Dr Alaadddin DURAN, Assoc. Prof. Dr. Reha BAYAR, Prof Dr Tamer ŞUER. Assoc. Prof. Dr. Reha BAYER, Prof Dr Ruhi YAVUZ, Prof Dr Engin EKER, Prof Dr Müfit UĞUR, Assoc. Prof. Dr. Turan ERTAN Prof Dr Ömer TUNCER Prof Dr İbrahim BALCIOĞLU, Prof Dr Kerem DOKSAT Prof Dr Neşe KOCABAŞOĞLU, Prof Dr Kemal ARIKAN, Assoc. Prof. Dr Mert SAVRUN, Prof Dr Alaaddin DURAN, Assoc. Prof. Dr. Gökhan ORAL, Prof Dr Mine ÖZMEN.			

#### **Aims and Objectives:**

In general the aim of the lectures is to give some basic knowledge about the most frequent psychiatric disorders in the population. These lectures are designed for giving adequate information about the epidemiology, frequency, symptomatology and primary, basic coping strategies with these disorders. Also some brief knowledge is given about the treatment modalities of the mental disorders.

#### **Course Contents:**

Psychiatric symptomatology, psychiatric interview, emergency psychiatry, alcohol related psychiatric problems, psychiatric problems due to substance abuse, schizophrenia, delirium and dementia, affective disorders, sexual abuse and disorders, somatoform disorders, psychiatric problems due to medical, social, personality disorders, dissociative disorders, anxiety disorders, defence mechanisms, sleep disorders and eating disorders, psychiatric disorders, child psychiatry, psychiatric treatment, forensic psychiatry (legal aspects, forensic psychiatry (medical aspects ), psychotherapies.

#### **Assessment Methods:**

Both oral and written examination weighed 50%

#### **Prerequisite**

At least %70 attendance of the lectures is required,  
At least %80 attendance of the course is required.

#### **Recommended:**

For the courses preliminary study is required.

#### **Text Book/Recommended Readings:**

- American Psychiatric Association: DSMIII. Diagnostic and statistical manual of mental disorders. 3. Edit. American Psychiatric Association. Washington DC.1980.
- Atkinson, R. Atkinson C., Hilgard, E.: Introduction to Psychology, Harcourt Brace Jovanovich Inc. San Diego, 1980.
- Kaplan, Sadock. Synopsis of Psychiatry, Behavioural Sciences/Clinical Psychiatry 8. Edit. Mass Publishing Co. Egypt. 1998.

## Thoracic and Cardiovascular Surgery Academicals Advertisement

NAME of the COURSE: <b>THORACIC AND CARDIOVASCULAR SURGERY</b>			Course Code: e469/e470
ECTS Credits: 2	Semester: 7-8	Undergraduate	Required
Hours: 42 hours	Lectures: 20 hours in 2 weeks	Tutorials: 22 hours in 2 week	Language of the Course: English
Prof. Dr. Hasan TÜZÜN, Prof. Dr. A. Kürşat BOZKURT, Assoc. Prof. Dr. Kamil KAYNAK.			

### **Aims and Objectives:**

The aims of the lectures are to teach proper and latest updated basic and advanced knowledge regarding thoracic and cardiovascular surgery. Although the main topics are surgically oriented, the symptomatology, diagnostic methods, and medical treatment have also been given. The students were also taken to the operating room to see some operations.

### **Course Contents:**

Congenital heart disease (cyanotic heart disease, atrial septal defects, ventricular septal defects, patent ductus arteriosus, coarctation of the aorta), adult heart disease, (coronary artery disease, mitral valve disease, aortic valve disease, pericardial diseases,) thoracic disease (Lung Cancer, Mediastinal tumours, Thoracic Outlet Syndrome, Thoracic trauma Infectious lung diseases), arterial disease (atherosclerosis obliterans, Buerger's disease) venous and lymphatic disease, trauma.

### **Assessment Methods:**

Multiple choice written exam and oral exam (weight 50% each).

### **Prerequisite:**

- 1) 80% attendance to the lectures is required.
- 2) All students should attend to practical tutorials.

### **Text Book/Recommended Readings:**

- Current Surgical Diagnosis & Treatment, Lawrence W. Way, Gerard M. Doherty McGraw-Hill Companies 11<sup>th</sup> ed. 2002.

## Plastic, Reconstructive and Aesthetic Surgery Academicals Advertisement

NAME of the COURSE: <b>PLASTIC, RECONSTRUCTIVE &amp; AESTHETIC SURGERY</b>			Course Code: e471/e472
ECTS Credits: 2	Semester: 7-8	Undergraduate	Required
Hours: 44	Lectures: 33 hours in 2 weeks	Tutorials: 11 hours in 2 weeks	Language of the Course: English
Contact: Prof. Dr. Fethi ORAK, Prof. Dr. Oğuz ÇETİNKALE, Assoc. Prof. Dr. Akin YÜCEL, Assoc. Prof. Dr. Yağmur AYDIN			

### **Aims and Objectives:**

Plastic Surgery is a specialized branch of surgery concerned with the repair of deformities and correction of functional deficits. While plastic surgery is largely concerned with form, as is implied in the term "plastic" the functional aspects are also important. A sense of form and innate ability to make an aesthetic judgement are critical qualities for the plastic surgeon. It can also be defined as a problem solving surgical discipline. It is unique in that it spans the entire body and does not have a defined anatomic area. It is ironic that the plastic surgeon, operating on all anatomic areas of the body, has evolved into modern day "general surgeon". Plastic surgery is both reconstructive and aesthetic. Reconstructive surgery is an attempt to restore the individual to normal; aesthetic surgery attempts to surpass the normal.

The plastic surgeon extends his surgical activities not only to skin and adnexa but also to certain to subjacent tissues in locations as diverse as face and hands, the neck and abdominal wall, the extremities and the genitourinary apparatus, the breast and scalp. To the term plastic surgery is added the adjective "reconstructive" which implies an extension of the plastic surgeons activities to the most diverse reconstructive procedures such as vascular and microvascular surgery, peripheral nerve surgery, transplantation of muscles and tendons and arthroplasties thus overlapping the speciality of orthopedic surgery.

### **Course Contents:**

Wound healing, flaps grafts and tissue transplantations, thermal injury and treatment, facial injuries, cleft lip and palate, craniofacial surgery, general principals of hand surgery, oral and perioral tumours, malignant skin tumours, malignant melanoma, lymphedema, hemangioma and vascular malformations.

### **Assessment Methods:**

%60 written examination, %40 oral and practical examination.

### **Prerequisite:**

At least %95 of lectures must be attended.

For the entrance of final examination the student has to attend the practical lessons

Final examination must over 50%

### **Recommended:**

For the courses preliminary study required.

### **Text Book/Recommended Readings:**

- Plastic Surgery, Ed. Mc Carthy J.G., W.B. Saunders. Philadelphia, 1990.
- Plastic Surgery Secrets. Ed. Weinzweig J., Hanley and Belfus Medical Publishers, 1998.
- Grabb and Smith's Plastic Surgery, Ed. Aston S. J., Beasley R.W., Thorne C.H.M., Lippincott-Raven, Philadelphia, 1997.
- Plastic Surgery Indications, operations and outcomes, Ed. Kolk CAV, Mosby, St Louis, 2000.

## Anesthesiology and Reanimation Academicals Advertisement

NAME of the COURSE: <b>ANESTHESIOLOGY AND REANIMATION</b>		Course Code: e473/e474	
ECTS Credits: 2	Semester: 7-8	Undergraduate	Required
Hours: 37	Lectures: 15 hours in 2 weeks	Tutorials: 10 hours in 2 weeks 12 hours in 1 night stay in intensive care	Language of the Course: English
Contact: Prof. Dr. Mois BAHAR, Prof. Dr. Pervin BOZKURT, Prof. Dr. Yalım DİKMEN, Assoc. Prof. Dr. Ercüment YENTÜR, Assoc. Prof. Dr. Fatış ALTINTAŞ, Assoc. Prof. Dr. Oktay DEMİRKIRAN, Dr. A. Ferit PEKEL.			

**Aims and Objectives:**  
The aims of the courses is to teach proper and latest updated basic and advanced life support and enable safe practice in cardiopulmonary arrest in the fields and the hospital. Clinical applications of anesthesia and wide range of anesthetic approaches and monitorization introduced. Pathophysiologic basics of acute and chronic pain are described and treatment of pain is emphasized. Approach to several intensive care patients such as ARDS, sepsis, intoxications, increased intracranial pressure.

**Course contents:**  
Introduction to anesthesia, basic and advanced life support, initial shock, transfusion of blood and substitutes, respiratory insufficiency and O2 therapy sepsis/septic shock, ALI/ARDS, crush syndrome and fluid and electrolyte imbalance, intoxications, pain therapy, nutrition, physiology and treatment of increased intracranial pressure.

**Assessment Methods:**  
Classic written exam. Lowest acceptable grade is 50 out of 100 score.

**Prerequisite:**  
75% attendances of the lectures are required.  
All students should attend to practical CPR courses and stay on call in intensive care unit one overnight.

**Text Book/Recommended Readings:**  
- Clinical Anesthesiology, M. Morgan, Lange series, McGraw-Hill Companies, 3<sup>rd</sup> ed, 2001.

## Radiodiagnostics Academicals Advertisement

NAME of the COURSE: <b>RADIODIAGNOSTICS</b>			Course Code: e476/e479
ECTS Credits: 1.5	Semester: 7-8	Undergraduate:	Required/Selective
Hours: 28	Lectures: 28 hours in 2 weeks	Tutorials:	Language of the Course: English
Contact: Prof. Dr. Ayça ALTUĞ, Prof. Dr. Gündüz ÖĞÜT, Prof. Dr. Uğur KORMAN, Prof. Dr. Kaya KANBEROĞLU, Prof. Dr. Naci KOÇER, Prof. Dr. Civan IŞLAK, Prof. Dr. Canan AKMAN; Assoc. Prof. Dr. İsmail MİHMANLI, Assoc. Prof. Dr. Sebuğ KURUĞOĞLU, Assoc. Prof. Dr. Gül ESEN, Assoc. Prof. Dr. ALBAYRAM.			

### **Aims and Objectives:**

The aim is an introduction to the general principles of diagnostic imaging and designs a basic concept about the radiological features of different lesions.

### **Course Contents**

Introduction to radiology, radiology of the gastro-intestinal system, radiology of the skeletal system, radiology of the genito-urinary system, radiology of the respiratory system, radiology of the breast disease, neuroradiology, paediatric radiology, interventional radiology, ultrasound.

### **Assessment Methods**

Final exam 60%, Midterm 40%.

### **Prerequisite/ Recommended**

80 % attendances of the lectures are required.

### **Text Book/ Recommended Reading**

- Textbook of Diagnostic Imaging, D. Sutton, C. Livingstone, Philadelphia, 2003.
- Lesson presentations are accessible from the Istanbul University Cerrahpasa Medical Faculty Radiology website.

5. YEAR

9. SEMESTER (30 ECTS Credits)

Basic Public Health Academics Advertisement

NAME of the COURSE: <b>BASIC PUBLIC HEALTH</b>			Course Code: e551
ECTS Credits: 3	Semester: 9 <sup>th</sup>	Undergraduate	Required
Hours: 42	Lectures: 3 hours/week:	Tutorials:	Language of the Course: English
Contact: Prof. Dr. Ayşe KAYPMAZ			

**Aims and Objectives:**

Definition and general information of epidemiology, general principles of clinical research, epidemiology and prevention of selected acute illnesses, epidemiology and prevention of selected chronic illnesses. Water experiments for water born disease, preparation of questionnaire applications, and medical registration for several diseases.

**Course Contents:**

To introduce some fundamental concept of public health, to introduce general principle of epidemiology, statistics, epidemiology and prevention of select acute illnesses, epidemiology and prevention of selected chronic illnesses, medical ethics and public health, immunisation viral (Polimyelitis, Measles, Mumps, Rubella, hepatitis B, Influenza, Varicella) bacterial (diphtheria, tetanus, pertussis, HIB, pneumococcal disease) and protozoan (malaria) vaccine.

**Assessment Methods:**

Midterm 40%, Final Exam 60%

**Prerequisite:**

70% attendances of the lectures are required.

Final exam must over 50%.

**Text Book/Recommended Readings:**

- Public health & Preventive Medicine, ed. Robert B. Wallace Appleton & Lange 14th edition 1998.
- Preventive Medicine & Public health ed. Brett J. Cassens NMS 2nd edition 1998.
- Epidemiology & Prevention of Vaccine-Preventable Diseases CDC 3rd edition 1996.

## Oncology Academicals Advertisement

NAME of the COURSE: <b>ONCOLOGY</b>		Course Code: e553
ECTS Credits: 4	Semester: 9 <sup>th</sup>	Undergraduate
Hours: 46	Lectures: 4 Hours/week	Tutorials: Language of the Course: English

**Contact:** Prof. Dr. Ahmet ÖBER, Prof. Dr. Sait OKKAN, Prof. Dr. Sedat TURKAN, Prof. Dr. Gülyüz ATKOVAR, Prof. Dr. Ömer UZEL, Prof. Dr. Fazilet, Prof. Dr. Öner DİNÇBAŞ, Prof. Dr. Nuran ŞENEL BEŞE, Prof. Dr. İsmet ŞAHİNLER, Prof. Dr. Gökhan DEMİR, Prof. Dr. Fuat DEMİRELLİ, Prof. Dr. Mustafa ÖZGÜROĞLU, Prof. Dr. Berat APAYDIN, Prof. Dr. Nükhet TÜZÜNER, Prof. Dr. Fűrüzan NUMAN, Prof. Dr. Kerim SÖNMEZOĞLU, Prof. Dr. Ceyhun ORAL, Prof. Dr. Varol ÇELİK, Prof. Dr. Evin BÜYÜKÜNAL, Prof. Dr. Gül ÖNGEN, Prof. Dr. Kamil KAYNAK, Prof. Dr. Süheyla SERDENGEÇTİ, Prof. Dr. Kenan ULUALP, Prof. Dr. Serdar YÜCEYAR, Prof. Dr. Gülen DOĞUSOY, Prof. Dr. Ahmet ERÖZENCİ, Prof. Dr. Gülşen ÖZBAY, Prof. Dr. Fuat DEMİRKIRAN, Prof. Dr. Zerrin CALAY, Prof. Dr. Murat HIZ, Prof. Dr. Nil MANDEL, Prof. Dr. Sergülen DERVIŞOĞLU, Prof. Dr. Oğuz ÇETİNKALE, Prof. Dr. İrfan PAPİLA, Prof. Dr. Mehmet Yaşar KAYNAR, Prof. Dr. Işık AYDINLI, Prof. Dr. Aykut ÇELİK, Prof. Dr. Ali MERT, Prof. Dr. M.Kemal ARIKAN, Prof. Dr. Süphan ERTÜRK.

### Aims and Objectives:

Principles of cancer management are introduced in multidisciplinary manner.

### Course Contents:

Multidisciplinary approach, screening, early diagnosis, epidemiology, etiology, chemical, physical and hormonal factors, cell cycle, proliferation, genetic replication, oncogenes and tumor suppressor genes, intracellular signal transduction and cancer, carcinogenesis, angiogenesis ve metastasis, early symptoms for the tumors with high incidence, biopsy, when and how, diagnostic pathology and tumor morphology, the role of radiological imaging in cancer, the role of nuclear medicine in cancer, principles of treatment, surgical oncology, radiation oncology, medical oncology, targeted therapies, hormonal treatment, biological treatment, brachytherapy, lymphadenopathy, differential diagnosis, clinic parameters of lymphomas, chemotherapy in lymphoma, radiotherapy in lymphoma, autopsy of a patient with lymphoma, mass in breast 1- surgical intervention and treatment, radiotherapy in breast cancer, 3- systemic treatment in breast cancer, mass in lung, diagnosis and staging, surgery, chemoradiotherapy in NSCLC, chemotherapy in lung cancer, autopsy of a patient with lung carcinoma, gastrointestinal system, staging, diagnosis, surgical treatment in esophagus, gastric, colon tumors, staging, diagnosis and surgical treatment in liver gallbladder and pancreas tumors, radiotherapy, chemotherapy, autopsy of a patient with GIS tumor, urologic tumors, diagnosis, staging, surgical treatment, radiotherapy, chemotherapy, autopsy of a patient with urologic tumor, gynecologic tumors, diagnosis, staging, surgical treatment, radiotherapy, chemotherapy, autopsy of a patient with gynecologic tumor, sarcomas, surgery in bone and soft tissue tumors, chemotherapy, radiotherapy, autopsy of a patient with sarcoma, malignant melanoma and skin tumors, surgery, systemic treatment in melanoma, radiotherapy in the treatment of skin carcinoma, head and neck and brain tumors, surgery in head and neck tumors, surgery in brain tumors, radiotherapy in head and neck tumors, radiotherapy in brain tumors, palliative and supportive treatment, management of pain, alimentation of a patient with cancer, management of infection, supportive psychiatric care, postoperative care of a cancer patient, emergency in oncology, metabolic (disorders) problems, SVCS, medullary compression, intracranial pressure increase, paraneoplastic syndromes.

### Assessment Methods:

Written examination must over 50%.

### Prerequisite/Recommended:

### Text Book/Recommended Readings:

- Principles and Practice of Cancer. V.Pevita, S.Hemmkar Lippincott. Philadelphia, 2005.

**5. YEAR  
CLINICAL UNIT**

**10. SEMESTER (30 ECTS Credits)**

**Public Health Academicals Advertisement**

NAME of the COURSE: <b>PUBLIC HEALTH</b>			Course Code: e552
ECTS Credits: 4	Semester: 10 <sup>th</sup>	Undergraduate	Required
Hours: 56	Lectures: 3 hours/week	Tutorials: Course: 1 hours/ week	Language of the Course: English
Contact: Prof. Dr. Ayşe KAYPMAZ			

**Aims and Objectives:**

Definition and general information of epidemiology, general principles of clinical research, epidemiology and prevention of selected acute illnesses, epidemiology and prevention of selected chronic illnesses. Water experiments for water born disease, preparation of questionnaire applications, and medical registration for several diseases.

**Course Contents:**

The teaching program is focused on knowledge of aspect public health and preventive medicine, Sexually transmitted diseases (AIDS, Syphilis, Hepatitis B), disease spread by food and water (Typhoid fever, Shigellosis, Cholera, E.Coli diarrhea, Yersiniosis, Legionellosis), food poisoning, Nosocomial infections, disease transmitted primarily from animals to humans (Rabies, Psittacosis, Tularemia, Anthrax, Brucellosis, Leptospirosis, Salmonellosis, Toxoplasmosis), Industrial hygiene, tobacco, alcohol-related health problems, prevention of drug abuse, genetics and public health, international health, cancer, heart disease, hypertension, renal and urinary disease, diabetes, respiratory disease prevention (tuberculosis), gastrointestinal tract disorders and vaccines, neurological disorders, mental retardation, occupational health, environmental health (toxicology, asbestos and silicosis).

**Assessment Methods:**

Midterm 40%, Final Exam 60%.

**Prerequisite:**

- 1) 70% attendances of the lectures is required.
- 2) For the entrance of the final exam 4 of 4 courses must be attended.
- 3) Final exam must over 50%.
- 4) Every students should be present a seminar.

**Recommended:**

**Text Book/Recommended Readings:**

- Public health & Preventive Medicine, ed. Robert B. Wallace Appleton & Lange 14th edition 1998.
- Preventive Medicine & Public health ed. Brett J. Cassens NMS 2nd edition 1998.
- Epidemiology & Prevention of Vaccine-Preventable Diseases CDC 3rd edition 1996.

## Clinical Biochemistry Academicals Advertisement e554

NAME of the COURSE CLINICAL BIOCHEMISTRY			Course Code: e554
ECTS Credits: 2	Semester: 10 <sup>th</sup>	Undergraduate	Required
Hours: 28	Lectures: 2hours/week	Tutorials:	Language of the Course: English
Contact: Prof. Dr. Orkide DONMA, Prof. Dr. Gülden BURÇAK, Prof. Dr. Sevil ATASOY, Prof. Dr. Arzu SEVEN, Prof. Dr. Lale SEVER, Prof. Dr. Ahmet AYDIN, Prof. Dr. Salim ÇALIŞKAN, Prof. Dr. Aykut ÇELİK, Assoc. Prof. Dr. Pınar KADIOĞLU.			

### Aims and Objectives

To introduce the acquisition and use of biochemical data, biochemical basis of diseases, clinical significance of plasma proteins and plasma enzymes, assessment of water, electrolyte and acid-base balance, biochemical tests in assessment of liver and renal functions; functions, deficiency and toxicity states of vitamins, physiological, clinical and analytical aspects of calcium, phosphorus and magnesium metabolisms, essential trace element and toxic metals status, disorders of carbohydrate metabolism and diabetes mellitus, the incidence and type of lipid and lipoprotein abnormalities, the clinical significance of lipid / lipoprotein assessment in coronary heart disease, laboratory data associated with endocrine disorders, biochemical tests in the differential diagnosis of inborn errors of metabolism, the laboratory techniques, patterns, and interpretations of hemoglobinopathies, disorders of purine and pyrimidine metabolisms, the role of DNA as a new forensic science tool in human identification.

### Course Contents:

Use of biochemical tests in diagnosis, prognosis, monitoring and screening. Sampling; reporting and interpretation of results. Accuracy, precision specificity, sensitivity, efficiency and predictive value of tests, reference intervals. Distribution of sodium, potassium and water. Homeostasis and laboratory assessment of water, sodium and potassium; hypo- and hypernatraemia, hypo- and hyperkalaemia. Hydrogen ion homeostasis, blood gasses. Clinical and laboratory assessment of hydrogen ion status and the related disorders. Biochemical assessments of renal and hepatic functions, interpretation of test results in renal and hepatic diseases. Disorders and biochemical investigation of gastric, exocrine pancreatic and intestinal function. Structures and functions of vitamins; deficiency and toxicity states. Biochemistry, physiology, metabolism and clinical significance of Ca, P and Mg; related disorders; Characteristics of trace element functions, clinical significance, the related diseases. Toxic metals. Disorders of carbohydrate metabolism and the biochemistry of diabetes mellitus. Lipoprotein metabolism. Reference ranges and laboratory investigations. Disorders of lipid metabolism and atherosclerosis and cardiovascular system diseases, the assessment of cardiovascular risk. Disorders of the thyroid and the adrenal cortex; biochemical evaluation of thyroid and adrenocortical function. Inborn errors of metabolism; the pathophysiology, classification, clinical manifestations, simple and complex diagnostic laboratory tests, screening tests. Laboratory of abnormal hemoglobins and thalassemias. Hemoglobin electrophoretic patterns, Hemoglobin A<sub>2</sub> and F. Qualitative/quantitative interpretations. Prenatal diagnosis of hemoglobin disorders: Fetal blood and DNA analysis. Overview of the purine and pyrimidine metabolism. Molecular and clinical basis of gout. Lesch-Nyhan Syndrome, SCID. Human genome and human gene therapy. Forensic clinical biochemistry.

### Assessment Methods:

Midterm 40%, Final Exam 60%.

The curve system is used in the evaluation of examination results.

### Prerequisite/Recommended:

For the courses preliminary study required.

### Text Book/Recommended Reading:

- Montgomery R, Conway TW, Spector AA (eds.), Biochemistry. A Case-Oriented Approach, 6<sup>th</sup> ed. Mosby – Year Book, Inc., St.Louis, 1996.
- Burtis CA, Ashwood ER (eds) Tietz Fundamentals of Clinical Chemistry. 5<sup>th</sup> ed. W.B.Saunders Company, Philadelphia, 2001.
- Smith C, Marks A, Lieberman M (eds), Marks' Basic Medical Biochemistry. A Clinical Approach. 2<sup>nd</sup> ed., Lippincott Williams & Wilkins, Philadelphia, 2005.

## Clinical Biostatistics Academic Advertisement

NAME of the COURSE: <b>CLINICAL BIOSTATISTICS</b>			Course Code: e556
ECTS Credits: 3	Semester: 10 <sup>th</sup>	Undergraduate	Required
Hours: 42	Lectures: 1 hour/week	Tutorials: Course: 2 hours/ weeks	Language of the Course: English
Contact: Prof. Dr. Ahmet DİRİCAN			

### Aims and Objectives:

Our aims to build on the theoretical knowledge the student have obtained in biological and medical studies. Objectives are know about the main designs used in clinical research, have basic skills to evaluate the quality of hypotheses, design and data analysis in clinical research relevant to clinical practice, have a basic knowledge of the evidence for the efficacy and effect size of the therapeutic interventions, reach correct conclusions about diagnostic procedures, and evaluated study protocols and articles submitted for publication, and participate in medical research.

### Course Contents:

Introduction, recalling basic concepts of biostatistics, describing clinical data, meaning of biostatistical inferences and clinical significance, vital statistics, morbidity and mortality, incidence and prevalence, evaluating diagnostic procedures and roc curves, causality and quantifying risk, survival analysis, clinical research design, decision making and ethics in research, sampling methods and sample size, confounding factors and introduction to multivariate analysis.

### Assessment Methods:

Courses 20%, Midterm 20%, Final Exam 60%

### Prerequisite:

- 1) 70% attendances of the lectures is required.
- 2) For the entrance of the final exam 8 of 10 courses must be completed.
- 3) Final exam must over 50%.

### Recommended:

For the courses preliminary study required.

### Text Book/Recommended Readings:

- Basic and Clinical Biostatistics: Beth-Dawson Saunders, Robert G. Trapp. Lange medical Book Series, International Edition (Third), 2001
- Clinical Epidemiology and Biostatistics: Rebecca G. Knapp, M. Clinton Miller III. The National Medical Series for Independent Study, Williams & Wilkins Book Company, 1992
- Medical Biostatistics and Epidemiology: Diane Essex-Sorlie, Lange medical Book Series, First Edition, 1995.

## 9-10. SEMESTER COURSES

### Internal Medicine Academics Advertisement

NAME of the COURSE: <b>INTERNAL MEDICINE</b>			Course Code: e555/e558
ECTS Credits: 12	Semester: 9-10	Undergraduate	Required:
Hours: 306	Lectures: 126 hours in 14 weeks	Tutorials: 180 hours in 14weeks	Language of the Course: English
Contact: Assoc. Prof. Dr. Pinar KADIOĞLU, Prof. Dr. Sadi GÜNDOĞDU, Prof. Dr. Ertuğrul TAŞAN, Prof. Dr. Zeynep OŞAR, Prof. Dr. Taner DAMCI, Assoc. Prof. Dr. Gökhan DEMİR, Prof. Dr. Hasan İLKOVA, Prof. Dr. Uğur GÖRPE, Prof. Dr. Burhan FERHANOĞLU, Assoc. Prof. Dr. Zafer BAŞLAR, Prof. Dr. Teoman SOYSAL, Prof. Dr. Meltem PEKPAK, Prof. Dr. Kamil SERDENGEÇTI, Assoc. Prof. Dr. Süheyla APAYDIN, Prof. Dr. Yesari KARTER, Prof. Dr. Volkan YUMUK, Assoc. Prof. Dr. İzzet FRESKO, Assoc. Prof. Dr. Mehmet Rıza ALTIPARMAK, Assoc. Prof. Dr. Aykut Ferhat ÇELİK, Prof. Dr. Hakan ŞENTÜRK, Prof. Dr. Ahmet DOBRUCALI, Prof. Dr. Zeynep ERDİNÇLER, Prof. Dr. Huri ÖZDOĞAN, Prof. Dr. Vecdet TEZCAN, Prof. Dr. Fehmi TABAK, Prof. Dr. Ali MERT, Prof. Dr. Recep ÖZTÜRK, Prof. Dr. Fuat DEMIRELLI, Assoc. Prof. Dr. Mustafa ÖZGÜROĞLU.			

#### Aims and Objectives:

To provide a basic understanding of the biology and pathophysiology of systemic diseases, to incorporate diagnostic and therapeutic knowledge and skills throughout his/her career. Early lectures cover mostly bedside physical examination techniques and skills to recognize signs and symptoms of disease.

#### Course Contents:

Social medicine, pituitary gland diseases, parathyroid gland diseases, osteoporosis and metabolic bone diseases, multiple endocrine disorders, neuroendocrine disorders, diabetes mellitus, oral antidiabetics, Hodgkin Disease, non-Hodgkin lymphomas, thrombocytopenia, acute leukaemia, myelodysplastic syndromes, chronic lymphocytic leukaemia, chronic myeloid leukaemia, thrombophilia and anticoagulant treatment, transfusion medicine, DIC, hemophilia, glomerular diseases, diabetes and kidney, systemic disease and kidney, polycystic kidney and congenital kidney diseases, acute renal failure, chronic renal failure, transplantation, alcoholic liver diseases, chronic hepatitis C, celiac disease, GI peptide and hormones, GI endocrine tumours, esophageal disorders, gall stones, inflammatory bowel diseases, acute and chronic pancreatitis, functional disorders of GI tract, diverticular diseases of GI tract, benign tumours of the GI tract and polyps, insulin treatment, diabetic nephropathy, pregnancy and diabetes, hematopoietic stem cell transplantation, hyperlipidemias, gout and porphyrias, obesity, respiratory disorders in the elderly, heart disease in the elderly, infections in the elderly, rheumatologic disorders in the elderly, genitourinary disease in the elderly, GI disorders in the elderly, anemia in the elderly, chronic hepatitis B, non-alcoholic fatty liver, autoimmune liver diseases, extrahepatic liver disease, space occupying lesions of the liver, systemic disease and the liver, acute hepatic failure, FMF, hepatic encephalopathy, rheumatoid arthritis, Behçet's disease, juvenile inflammatory arthritis, seronegative spondylarthropathies, scleroderma, polymyositis and dermatomyositis, intestinal parasites, pregnancy and medical diseases, polymyalgia rheumatica and giant cell arthritis, mononucleosis syndromes, infections of immunocompromised host, fever of unknown origin, nosocomial infections, antibiotic use, HIV infection, staph. and strep.infections and septic shock, DVT/PE, poisoning, dialysis, interstitial kidney disease, multiple myeloma and paraproteinemias, systemic vasculitis, SLE, crystal arthritis.

#### Assessment Methods:

Both oral examination 50% and written examination 50%.

#### Prerequisite/Recommended:

Full attendance to the theoretical and bedside practical courses is required to take the final exams.

#### Text Book/Recommended Readings:

- Harrison's Principles of Internal Medicine, 15<sup>th</sup> edition, Braunwald E, Fauci A, Kasper D, Hauser S, Longo D, Jameson D, McGraw-Hill, 2001.

### Social Medicine Academicals Advertisement

NAME of the COURSE: INTERNAL MEDICINE-			Course Code: e557/e560
ECTS Credits: 1	Semester: 9-10	Undergraduate	Required:
Hours: 14	Lectures: 14 hours in 14 weeks	Tutorials:	Language of the Course: English
Contact: Prof. Dr. Hakan ŞENTÜRK, Prof. Dr. Zeynep OSAR, Assoc. Prof. İzzet FRESKO, Assoc. Prof. Mustafa ÖZGÜROĞLU, Assoc. Prof. Dr. Gökhan DEMİR, Assoc. Prof. Zafer BAŞLAR, Assoc. Prof. Dr. Aykut Ferhat ÇELİK, Assoc. Prof. Dr. Volkan YUMUK.			

#### **Aims and Objectives:**

The aims of this course are education and increasing the knowledge and skills of the medical students in the main issues of social medicine.

#### **Course Contents:**

Demographic features of Turkish population and family planning, genetic consulting, the concept of social medicine, glossary, main principals, the socialisation of medicine, social medicine in the practice of internal medicine, ethical issues in medical practice, environmental health in view of social medicine, health statistics of turkey, basic issues in clinical epidemiology, nutrition, geriatrics and related institutes, medical education and media.

#### **Assessment Methods:**

One written exam must over 50% scheduled at the end of the course.

#### **Prerequisite/Recommended:**

Attendance to courses are required.

#### **Text Book/Recommended Readings:**

- Epidemiology in Medical Practice Churchill Livingstone Published February 1998.
- Social Science & Medicine Journal, Published by Elsevier Ltd, 2001.

## Cardiology Academics Advertisement

NAME of the COURSE: <b>CARDIOLOGY</b>			Course Code: e559/e562
ECTS Credits: 3	Semester: 9-10	Undergraduate:	Required
Hours: 82	Lectures: 42 hours in 14 weeks	Tutorials: 40 hours in 14 weeks	Language of the Course: English
Contact: Prof. Dr. Işık BAŞAR, Prof. Dr. Sedat. TAVŞANOĞLU, Prof. Dr. Barış. İLERİGELEN, Prof. Dr. Zeki. ÖNGEN, Prof. Dr. Serap. ERDİNE, Prof. Dr. Hakan. KARPUZ, Prof. Dr. Seçkin. PEHLIVANOĞLU, Prof. Dr. Lale. KOLDAŞ			

### **Aims and Objectives:**

To diagnose and manage patients with heart disease in general practice, To achieve the theoretical and practical skills to evaluate patients from the symptoms to the primary treatment.

### **Course Contents:**

Myocardial infarction 1, 2, 3, heart failure 1, 2, intensive care in cardiology, cardiomyopathies 1, 2, high output heart disease, clinical significance of conduction disturbances, silent ischemia, x syndrome, pulmonary embolism, clinical significance of ventricular arrhythmias 1,2, cardiovascular diseases in athletes, systemic hypertension 1,2, clinical significance of supraventricular arrhythmias, pregnancy and the heart, risk factors for atherosclerotic disease, noncardiac surgery in cardiac patients, adult congenital heart disease 1,2, tumours of the heart, clinical significance of atrial fibrillation, diseases of the aorta, primary and secondary prevention in heart disease, interventional cardiology, cor pulmonale, evidence based drug treatment in heart disease 1,2,3,4.

### **Assessment Methods:**

Final oral examination must over %60.

### **Prerequisite/ Recommended:**

Attendance to %70 of lectures and %80 bedside tutorials are mandatory.

### **Text Book/Recommended Readings:**

- Harrison's Principles of Internal Medicine 16<sup>th</sup> eds. Kasper L.D. Brawnwald, Favci. A. Hauvsers, Hongo D. Jameson J. L., Mc Graw-Hill 2005.
- Cecil's Textbook of Medicine eds; Goldman L., Ausiello D. 22<sup>nd</sup> edition Saunders 2004.

## Nuclear Medicine Academics Advertisement

NAME of the COURSE: <b>NUCLEAR MEDICINE</b>			Course Code: e561/e564
ECTS Credits: 1	Semester: 9-10	Undergraduate:	Required
Hours: 14	Lectures: 14 hours in 14 weeks	Tutorials:	Language of the Course: English
Contact: Prof. Dr. Haluk B. SAYMAN, Prof. Dr. Çetin ÖNSEL, Prof. Dr. Levent KABASAKAL, Prof. Dr. Kerim SÖNMEZOĞLU, Assoc. Prof. Dr. Bedii KANMAZ.			

### **Aims and Objectives:**

The aim of these lectures is to give a basic knowledge about nuclear physics, instrumentations used, in diagnostic nuclear medicine, describe procedures for the clinical use of nuclear medicine. Objectives are to keep students up to date about the current techniques of nuclear medicine and to prepare them for good decision making in their future practice of medicine.

### **Course Contents:**

Instrumentation, radiopharmacy, thyroid diseases, nephrology in nuclear medicine, hepatobiliary imaging, skeletal imaging, myocardial perfusing imaging, pulmonary and infection imaging, gastrointestinal system, central nervous system, therapy with radionuclides, lymphoscintigraphy and gamma probe, pet imaging.

### **Assessment Methods:**

At the theoretical end of the lectures, the students are asked to get the final examination with multiple-choice questions. Midterm 40%, Final Exam 60%.

### **Prerequisite/ Recommended:**

It is obligatory to attend the lectures for the students. Visiting the nuclear medicine and observing the daily routine is recommended and it is optional.

### **Text Book/Recommended Readings:**

- Diagnostic Nuclear Medicine. Editor; C. Schiepers, Springer Verlag, 1999.

## Pediatrics Academicals Advertisement

NAME of the COURSE: <b>PEDIATRICS</b>			Course Code: e563/e566
ECTS Credits: 10	Semester: 9-10	Undergraduate	Required
Hours: 256	Lectures: 14 weeks 112 hours in 14 weeks	Tutorials: 144 hours in 14 weeks	Language of the Course: English
Contact: Prof. Dr. Yıldız PERK, Prof. Dr. Mehmet VURAL, Prof. Dr. Fügen ÇULLU, Prof. Dr. Tülay ERKAN, Prof. Dr. Tufan KUTLU, Prof. Dr. Yıldız CAMCIOĞLU, Prof. Dr. Haluk ÇOKUĞRAŞ, Prof. Dr. Oya ERCAN, Prof. Dr. Beyhan TÜYSÜZ, Prof. Dr. Serap UYSAL, Prof. Dr. Sabiha KESKIN, Prof. Dr. Ayşe EROĞLU, Prof. Dr. Levent SALTİK, Prof. Dr. Funda ÖZTUNÇ, Prof. Dr. Salim ÇALIŞKAN, Prof. Dr. Lale SEVER, Prof. Dr. Özgür KASAPÇOPUR, Prof. Dr. Halit ÇAM, Prof. Dr. Ahmet AYDIN, Prof. Dr. Tiraje CELKAN, Prof. Dr. Hilmi APAK, Prof. Dr. Alp ÖZKAN			

### Aims and Objectives:

The symptoms and signs the student is trained to make a diagnosis and would be able to treat the patient. She/he must be capable to handle a patient starting with having the history of the child, physical examination, venipuncture or other invasive procedures as well as following and treating the patient.

### Course Contents:

Malnutrition-obesity, nutrition, coma, intoxications, cystic fibrosis, social pediatrics, diabetes mellitus, child rights, metabolic diseases, sepsis meningitis, respiratory problems of newborn, intrauterin infection, hypoxemic newborn, high risk neonate, hyperbilirubinemia, metabolic problems in newborn, primary care of newborn, polyradiculoneuritis, muscle disease, febril seizures, fmf, juvenile rheumoid arthritis, vasculitis, epilepsy, oral rehydration, acute gastroenteritis, tubulopathies, acute hepatitis, malabsorption-coeliac disease, acute glomerulonephritis, peptic disease, cirrhosis-portal hypertension, cholestasis, a. renal insufficiency, hypertension, fluid therapy, urinary tract infections, chronic hepatitis, nephrotic syndrome, primary hemostasis defects, secondary hemostasis defects, anemias iron defects, solid tumours, anemias hemolytic, lymphomas-leukemia, anemias megaloblastic, transfusion, cardiologic diagnosis, ASD-PDA, myocarditis heart failure, cong. cyanotic H.D., VSD, valve disorders, endocarditis-pericarditis, a. rheumatic fever, chromosomal disorders, skeletal dysplasia, genetic counselling, storage diseases, rickets, providing care to adolescent, growth hormone deficiency, adolescent preventive services, diabetes insipidus, adrenogenital syndrome, pubertal disorders, meningitis, parasitosis, pertussis, urticaria-angio edema, atrophy-eczema, exanthem, , upper respiratory infections, pneumonia, immune deficiency, tuberculosis, parotitis, bronchiolitis-asthma, encephalitis.

### Assessment Methods:

Courses 40%, Final 60%.

### Prerequisite:

70% attendances of the lectures are required.

For the entrance of the final exam 28 of 40 courses must be completed.

Final must over be 50 %.

### Recommended:

For the courses preliminary study required.

### Text Book / Recommended Readings:

- Krugman's Infectious Diseases of Children 9<sup>th</sup> ed. Samuel L. Katz, Anne A. Gershon, Peter J. Hotez Mosby-Year Book, Inc 1992.
- Neonatology-Pathophysiology Management of the Newborn. Eds. Gordon B. Avery, Mary Ann Fletcher, Mhairi G. MacDonald. Lippincott Williams&Wilkins 1999.
- Nelson Textbook of Pediatrics Eds: Richard E. Behrman, Robert M. Kliegman, Hal B. Jenson 17<sup>th</sup> edition international edition. 2004.

## Pediatric Surgery Academicals Advertisement

NAME of the COURSE: <b>PEDIATRIC SURGERY</b>			Course Code: e567/e568
ECTS Credits: 3	Semester: 9-10	Undergraduate:	Required
Hours: 70	Lectures: 28 hours in 14 weeks	Tutorials: 42 hours in 14 weeks	Language of the Course: English
Contact: Prof. Dr. Cenk BÜYÜKÜNAL, Prof. Dr. Nur DANIŞMEND, Prof. Dr. Daver YEKER, Prof. Dr. Ozman Faruk ŞENYÜZ, Prof. Dr. Yunus SÖYLET, Prof. Dr. Ergun ERDOĞAN, Prof. Dr. Nüvit SARIMURAT, Prof. Dr. Sinan CELAYİR, Assoc. Prof. Dr. Gonca TEKAND, Assoc. Prof. Dr. Haluk EMİR			

### **Aims and Objectives:**

The aim of pediatric surgery course is to provide core knowledge for medical students in the field of general pediatric surgery and urological pediatric surgery. Trainees are expected to gain a general knowledge on the main topics have neonatal and children's surgical problems. In tutorials medical students are exposed to pediatric radiology, pediatric intensive care and basic procedures such as iv line insertion, nasogastric tubes, urinary catheters, wound dressings and stoma care etc.

### **Course Contents:**

General principles of pediatric surgery, congenital and acquired thoracic abnormalities of the newborn, appendicitis, meckel diverticulum, fluid and electrolytes, sepsis and septic shock, treatment modalities, trauma, the battered child, hypospadias, epispadias, exstrophy of the urinary bladder, congenital abnormalities of the abdominal wall and the chest wall, congenital oesophageal atresia, other atresias of the gis, meconium ileus, congenital pyloric stenosis, peptic ulcer, gastroesophageal reflux, portal hypertension, obstructive jaundice, transplantation, hepatoblastoma, disorders of the spleen and the pancreas, corrosive strictures of the oesophagus and the stomach, obstructive uropathies, gastrointestinal haemorrhage (nec, polypoid diseases), neuroblastoma, teratoma, tumours of the urinary system (wilms'tm, rhabdomyosarcoma), urinary tract infections, vesicoureteral reflux, anorectal malformations, intersex, congenital diaphragmatic hernia, urinary incontinence, hirschsprung's disease urolithiasis abnormalities of the inguinal canal, abnormalities of the head and the neck.

### **Assessment Methods:**

Classical Oral examination must over 50%.

### **Prerequisite:**

One research project for each student on an assigned pediatric surgery topic.

### **Text Book / Recommended Reading:**

- Pediatric Surgery. Ashcraft, Holcomb, Murphy. Elsevier Saunders, Philadelphia, PA, USA, 2005.
- Pediatric Surgery. O'Neill, Rowe, Grosfeld, Fonkalsrud, Coran. Mosby-Year Book Inc., St Louis, Missouri, USA, 1998.

## Radiation Oncology Academics Advertisement

NAME of the COURSE: <b>RADIATION ONCOLOGY</b>			Course Code: e569/e570
ECTS Credits: 2	Semester: 9-10	Undergraduate	Required
Hours: 44	Lectures: 14 hours in 14 weeks	Tutorials: 30 hours in 14 weeks	Language of the Course: English
Contact: Prof. Dr. Ahmet ÖBER, Prof. Dr. Sait OKKAN, Prof. Dr. Sedat TURKAN, Prof. Dr. Gülyüz ATKOVAR, Prof. Dr. Ömer UZEL, Assoc. Prof. Dr. Fazilet ÖNER DİNÇBAŞ, Assoc. Prof. Dr. Nuran ŞENEL BEŞE, Assoc. Prof. Dr. İsmet ŞAHİNLER			

**Aims and Objectives:**  
To give information about the principles and rational of radiotherapy and treatment techniques and modalities. The indications for radiotherapy and the results of the treatment are covered as well.

**Course Contents:**  
Principles of radiation oncology, introduction of the radiation treatment facilities, gastro-intestinal system tumours, skin-lip and oral cavity cancers tumours, breast cancer, lung cancer, tumours of the ovary and uterus, pediatric tumours of the cervix and vulva, neoplasm of the CNS, laryngeal tumours.

**Assessment Methods:**  
Both oral and written examination weighed 50% for each category.

**Prerequisite/Recommended:**  
Compulsory practical courses attendance to 80% of courses and required.

**Text Book/Recommended Readings:**

- Principles and Practice of Radiation oncology, CA Perez, LW Brady, EC Halperin, RK Schmidt-Ullrich Lippincott Williams and Wilkins Philadelphia, 2004.
- Textbook of Radiation Oncology SA Liebel and TL Philligs Eds. Sandes Philadelphia, 2004.
- Principles and Practice of Radiation Therapy Washington, Leaver Mosby 2004.

## Dermatology Academics Advertisement

NAME of the COURSE: <b>DERMATOLOGY</b>			Course Code: e571/e572
ECTS Credits: 3	Semester: 9-10	Undergraduate	Required:
Hours: 76	Lectures: 25 hours in 3,5 week	Tutorials: 51 hours in 3,5 week	Language of the Course: English
Contact: Prof. Dr. Aydın İŞÇİMEN, Prof. Dr. Oya OĞUZ, Prof. Dr. Cem MAT, Prof. Dr. Ertuğrul AYDEMİR, Prof. Dr. Yalçın TÜZÜN			

### **Aims and Objectives:**

The aim of the course is to provide students with general information about the main dermatological diseases, management of dermatological outpatients, competence to be able to distinguish between diseases that require specialist health care.

### **Course Contents:**

Topical treatment in dermatology, mycobacterial diseases, dermatological diagnosis, precancerous lesions, syphilis, bullous diseases, viral dermatoses, eczematous diseases, acne and similar diseases, parasitic infestations, superficial mycoses, skin cancer, psoriasis and psoriasiform diseases, sexually transmitted diseases, urticaria, bacterial infections.

### **Assessment Methods:**

Examination will be in the form of a written examination. In order to pass the course, students must have passed the written examination and participated in 70% of the lectures and the clinical training.

### **Prerequisite/Recommended:**

Students must participate in 70% of the lectures and the clinical training in the outpatient clinic.

### **Text Book/Recommended Readings:**

- Andrews' Diseases of the Skin: Clinical Dermatology Eds. Odom RB, James WD, Berger TG. 9<sup>th</sup> ed., Philadelphia, WB Saunders, 2000.
- Dermatoloji. Eds. Tüzün Y, Kotoğyan A, Aydemir EH, Baransü O. 2<sup>nd</sup> ed., Istanbul, Nobel, 1994.

## Pulmonary Medicine Academics Advertisement

NAME of the COURSE: <b>PULMONARY MEDICINE</b>			Course Code: e573/e574
ECTS Credits: 3	Semester: 9-10	Undergraduate	Required:
Hours: 72	Lectures: 27 hours in 3,5 week	Tutorials: 45 hours in 3,5 week	Language of the Course: English
Contact: Prof. Dr. Sema UMUT, Prof. Dr. Müzeyyen ERK, Prof. Dr. Nurhayat YILDIRIM, Prof. Dr. Mustafa YAMAN, Prof. Dr. Günseli KILINÇ, Prof. Dr. Ahmet Rasim KÜÇÜKUSTA, Prof. Dr. Gül ÖNGEN, Prof. Dr. Nail YILMAZ, Prof. Dr. Bilun GEMICIOĞLU, Prof. Dr. Birsen MUTLU, Prof. Dr. Günay AYDIN, Prof. Dr. Cüneyt TETIKKURT, Assoc. Prof. Dr. Bülent TUTLUOĞLU, Assoc. Dr. Tunçalp DEMİR			

### **Aims and Objectives:**

The aim is to raise awareness of COPD, and inform about risk factors (especially smoking), pathogenesis, diagnosis and management of COPD, pathogenesis, classification, clinical signs and symptoms, diagnostic tools, treatment modalities definition, classification, mechanisms of hypoxia and hypercapnia, diagnostic tools, follow-up, the characteristics of oxygen therapy, the interactive course that covers the patient's signs&symptoms and radiologic evaluation, epidemiology, diagnostic methods, staging, multidisciplinary approach to treatment, to discuss in depth ,the etiology, pathogenesis, diagnosis and to inform the students with the recent developments in the theurapeutic interventions. Also interesting cases are presented and revived by the attendees, the correct diagnosis and treatment of pneumonias, topographic anatomy of lung, hystologic and embryogenic structures, the value of sytology in pulmonary diseases, pathogenesis, diagnosis, principles of treatment, the aim is to inform about epidemiology, risk factors pathogenesis, diagnosis and management of asthma, is to define the causes of pleural effusion, to inform about approach to a patient with pleural effusion, diagnostic tools, causes, diagnosis and treatment modalities, clinical and laboratory signs, diagnosis and differential diagnosis, management, diagnosis, differential diagnosis and treatment, pulmonary complications of systemic diseases (endocrine, hematologic, renal, hepatic and cardiac diseases), diagnosis, treatment options of pulmonary complication, clinical and radiological features, diagnosis and treatment, definition, classification, clinical use of pulmonary function tests, diagnosis, prophylaxis, treatment, the effects of smoking on health, treatment modalities of smoking cessation.

### **Course Contents:**

Chronic obstructive lung disease, pulmonary hypertension and cor pulmonale, respiratory failure, clinical chest radiology, sarcoidosis, idiopathic pulmonary fibrosis, pneumonia, macro- and microstructure of the lung, tuberculosis, asthma, pleural effusion, pneumothorax, pulmonary edema, bronchiectasia, lung abscess, empyema, lung in systemic diseases, mediastinal diseases, occupational diseases, pulmonary emboli, tobacco.

### **Assessment Methods:**

Oral examination by two lecturers must over 50%.

### **Prerequisite/Recommended:**

Attendance, bedside education is required.

### **Text Book/Recommended Readings:**

- Fishman's Manual of Pulmonary Disease and Disorders. Alfred P. Fishman, Jack A. Elias, Jay A. Fishman, Michael A. Grippi, Larry R. Kaiser, Robert M. Senior. McGraw-Hill Professional 2002.

## Neurology Academics Advertisement

NAME of the COURSE: <b>NEUROLOGY</b>			Course Code: e575/e576
ECTS Credits: 2.5	Semester: 9-10	Undergraduate	Required:
Hours: 64	Lectures: 32 hours in 3,5 week	Tutorials: 32 hours in 3,5 week	Language of the Course: English
Contact: Prof. Dr. Aksel SİVA, Prof. Dr. Ayşe ALTINTAŞ, Prof. Dr. Sibel ERTAN, Prof. Dr. Barış KORKMAZ, Prof. Dr. M. Ali AKALIN, Prof. Dr. Derya KAYNAK, Prof. Dr. Gökhan ERKOL, Prof. Dr. Hülya APAYDIN, Prof. Dr. Çiğdem ÖZKARA, Prof. Dr. Naz YENİ, Prof. Dr. Melda BOZLUOLCAY			

**Aims and Objectives:** To learn how to do neurological examination, to learn how to diagnose neurological disorders and how to make differential diagnosis.

**Course Contents:** Introduction to clinical neurology, immune-mediated neurological disease, neurological complications of systemic disease, neurological complications of systemic disease, vertigo, pyramidal and cerebellar system and spinal cord, headaches, cerebrovascular diseases, sleep and its disorders, dementia, demyelinating diseases, pain, cerebral localizations, extrapyramidal system and movement disorders, disorders of consciousness, epilepsies, neurological emergencies, peripheral nerves and their diseases, neurogenetics and mitochondriopathies.

**Assessment Methods:**  
Practical-oral examination 40%, and written examination 60%.

**Prerequisite/Recommended:**  
Attendance to class (both lectures and tutorials) is required.

**Text Book/Recommended Readings:**  
- Adam's and Victor Principles of Neurology eds. Adams R. Victor M, Ropper A. Mc Graw-Hill 6<sup>th</sup> edition 1997.

## Forensic Medicine Academicals Advertisement

NAME of the COURSE: <b>FORENSIC MEDICINE</b>			Course Code: e578
ECTS Credits: 3.5	Semester:	Undergraduate	Required
Hours: 87	Lectures: 63 hours in 3.5 weeks	Tutorials: 24 hours in 3.5 weeks	Language of the Course: English
Contact: Assoc. Prof. Dr. Emre ALBEK.			

### **Aims and Objectives:**

Introduction into relevant topics of forensic medicine and its relationship to clinical subjects. Demonstration of typical forensic autopsy material and practical education in sections.

### **Course Contents:**

Introduction, forensic thanatology, forensic traumatology, asphyxia, physical hazards, topics in forensic toxicology, topics in forensic pediatrics, sexual assaults, topics in forensic biology, examination in living victims of trauma and sexual assault, topics in forensic psychiatry.

### **Assessment Methods:**

Final Examination in form of a multiple-choice test in English containing twenty questions. The examination covers the whole content of the course. The majority of the questions refer to imaginative forensic casuistics, which the students are required to interpret correctly. Special emphasize is put on macroscopic and microscopic pathology of organ changes relevant for medico legal assessment. The final examination results are definitely evaluated by means of a computer programme named "Interdependent Course Assessment System (ICAS)" which has been developed by the Faculty of Engineering, University of Istanbul. In this system, the scores of the students are calculated using the Gaussian Bell Distribution. The students have the right of a single repetition in case of an unsuccessful examination. A second failure will result in the repetition of the whole course.

### **Prerequisite/Recommended:**

An overall presence of at least 60% in both theoretical lessons and practical work is mandatory. Failure to do it will lead to the repetition of the whole course.

### **Text Book/Recommended Readings:**

- Forensic Pathology, Vincent J.M. DIMAIO, CRC Press, Boca Raton, Ann Arbor, London, Tokyo, 1993. ISBN:0-8493-9503-15.