

# YUNUS EMRE HEALTH SERVICES VOCATIONAL SCHOOL

Yunus Emre Vocational School started its education and training life with Pharmacy Services and Child Development Programs in 2008 and It changed its name call "Yunus Emre Vocational School of Health Services" in 2017 , trains personnel qualified in the field of health and education, provides training for the associate degree level. In 2009 in addition to existing programs, Geriatric Care Program, Hair Care and Beauty Services Program, Medical Laboratory Techniques Program also opened. Pharmacy Services is the first program in the field of pharmacy education in our country in terms of the health sector exemplifies. The graduate students that received training according to the nature of the department can work as well as qualified people in the private sector and public sector.

Director : Prof. Dr. Göksel ARLI  
Deputy Director : Assoc. Prof. Dr. Ayhan ALTINTAŞ  
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## STAFF

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## DEPARTMENT OF CHILD CARE AND YOUTH SERVICES

### PROGRAM IN CHILD DEVELOPMENT

Children's education should be considered as a whole program. The important thing is not only the maintenance of children at the same time important thing is the education of children. This program aims to educate people that have necessary knowledge in the field of pre-school education and private educational institutions, children's clinics, music, art, drama, gymnastics in playing rooms and computer training. The first time was first established in childhood personality periods, the child is of great importance in terms of development and socialization. Also according to child's social, mental, psychological and spiritual development, being aware of the child's capacity and use it, as well as developing physical skills and intelligence early education is very important. Within the scope between Vocational and Technical Secondary and Higher Education Institutions and ensuring the continuity of the Program Integrity Project Child Education Programme started its education since the academic year 2008-2009.

### PROGRAM

I. SEMESTER				II. SEMESTER			
BİL 150	Fundamentals of Information Technology	4+0	5,0	ÇGE 112	Family Education	2+0	4,0
ÇGE 110	Learning and Teaching Techniques	2+0	4,0	ÇGE 122	Child Development II	3+0	4,0
ÇGE 121	Child Development I	3+0	4,0	ÇGE 124	Science and Technology on Childhood	3+0	4,0
İNG 187 (Eng)	English I	3+0	3,0	ÇGE 223	Child Nutrition	2+0	4,0
MAT 126	Mathematics	2+0	2,0	EDB 122	Children's Literature and Media	2+0	4,0
SAĞ 205	First Aid	2+0	3,0	İNG 188 (Eng)	English II	3+0	3,0

TAR 165	Atatürk's Principles and History of Turkish Revolution I	2+0	2,0	TAR 166	Atatürk's Principles and History of Turkish Revolution II	2+0	2,0
TÜR 125	Turkish Language I	2+0	2,0	TÜR 126	Turkish Language II	2+0	2,0
	<i>Departmental Elective Courses</i>	-	3,0		<i>Elective Courses</i>	-	3,0
	<i>Elective Courses</i>	-	2,0				
							<u>30,0</u>
			<u>30,0</u>				

### III. SEMESTER

ÇGE 229	Art and Creativeness in Childhood	3+0	2,0
ÇGE 237	Communication with Children	2+0	3,0
ÇGE 241	Child and Game	2+0	3,0
ÇGE 243	Practice at Pre-school Education Institutions I	1+4	5,0
ÇGE 245	Material Development at Pre-school Education Institutions	2+0	3,0
ÇGE 247	Special Education I	3+2	5,0
HUK 259	Children's Law	2+0	2,0
SAĞ 209	Maternal and Child Health	2+0	3,0
	<i>Departmental Elective Courses</i>	-	4,0
			<u>30,0</u>
			<u>30,0</u>

### IV. SEMESTER

ÇGE 107	Child and Music	3+0	5,0
ÇGE 111	Inclusive Education	2+0	4,0
ÇGE 216	Seminar	2+0	4,0
ÇGE 222	Child Mental Health and Adjustment Disorders	2+0	3,0
ÇGE 244	Practice at Pre-school Education Institutions II	1+4	5,0
ÇGE 248	Special Education II	3+2	5,0
	<i>Departmental Elective Courses</i>	-	4,0
			<u>30,0</u>
			<u>30,0</u>

### DEPARTMENTAL ELECTIVE COURSES

ÇGE 104	Description of Guidance and Counseling Course	2+0	2,0
ÇGE 105	Drama in Education	3+0	4,0
ÇGE 106	Diction and Body Language	2+0	3,0
ÇGE 118	Child Recreation and Entertainment	2+0	3,0
ÇGE 120	Personal Development	3+0	4,0
ÇGE 225	Child Rights and Society	2+0	2,0
ÇGE 249	Early Childhood Environmental Education	3+0	4,0
ÇGE 251	Early Intervention Program	3+0	4,0
ECY 219	Occupational Health and Safety	2+0	2,0

### ELECTIVE COURSES

ÇMH 201U	Conflict and Stress Management I	3+0	4,0
KÜL 197	Life in Campus	0+2	4,0
KÜL 199	Cultural Activities	0+2	2,0
MÜZ 155	Turkish Folk Music	2+0	2,0
MÜZ 157	Traditional Turkish Art Music	2+0	2,0
SOS 113U	Behavioral Sciences I	3+0	4,0
SOS 155	Folkdance	2+0	2,0
THU 203	Community Services	0+2	3,0
TÜR 120	Turkish Sign Language	3+0	3,0

## DEPARTMENT OF ELECTRONICS AND AUTOMATION

### BIOMEDICAL SCIENCES (ENGLISH) (UOÖLP LEEDS METROPOLITAN)

#### PROGRAM

#### I. SEMESTER

BİY 123	Microbiology	2+0	3,0
BİY 125	Genetics and Molecular Biology	4+0	6,0
BMB 101	Introduction to Biomedical Science I	3+0	4,5
BMB 103	Practice in Biomedical Sciences I	0+3	4,5
BMB 105	Cytology, Hematology and Immunology	4+0	6,0
TAR 165	Atatürk's Principles and History of Turkish Revolution I	2+0	2,0
TÜR 125	Turkish Language I	2+0	2,0
	<i>Elective Courses</i>	-	2,0
			<u>30,0</u>
			<u>30,0</u>

#### II. SEMESTER

ANA 122	Human Physiology	4+0	6,0
BMB 102	Introduction to Biomedical Science II	3+0	4,5
BMB 104	Practice in Biomedical Sciences II	0+3	4,5
BMB 106	Mechanism of Drug Action	4+0	6,0
KİM 114	Biochemistry	2+0	3,0
TAR 166	Atatürk's Principles and History of Turkish Revolution II	2+0	2,0
TÜR 126	Turkish Language II	2+0	2,0
	<i>Elective Courses</i>	-	2,0
			<u>30,0</u>
			<u>30,0</u>

<b>III. SEMESTER</b>			
230 039 (Eng)	Cellular Basis of Disease	5+0	7,5
300 13 (Eng)	Research Investigations	5+0	7,5
300 39 (Eng)	Diagnosis of Infectious Disease	5+0	7,5
300 42 (Eng)	Professional Scientific Practice	5+0	7,5
			30,0

<b>IV. SEMESTER</b>			
300 12 (Eng)	Biology of Cancer	5+0	7,5
300 35 (Eng)	Mechanisms of Disease Transmission	5+0	7,5
300 41 (Eng)	DNA Technology	5+0	7,5
			<i>Elective Courses</i>
			-
			7,5
			30,0

#### **ELECTIVE COURSES**

300 40 (Eng)	Applied Molecular Biology	5+0	7,5
300 40* (Eng)	Medical Pharmacology	5+0	7,5
BEÖ 155	Physical Education	2+0	2,0
ÇEK 210	Health Insurance and Social Security Applications	2+0	3,0
İLT 201	Interpersonal Communication	3+0	4,5
KÜL 199	Cultural Activities	0+2	2,0
MÜZ 155	Turkish Folk Music	2+0	2,0

MÜZ 157	Traditional Turkish Art Music	2+0	2,0
SEK 222	Work Place Psychology	2+0	3,0
SEK 230	Speed Reading Techniques and Shorthand	1+1	3,0
SNT 155	History of Art	2+0	2,0
SOS 155	Folkdance	2+0	2,0
THU 203	Community Services	0+2	3,0

## **DEPARTMENT OF HAIR AND BEAUTY SERVICES**

### **PROGRAM IN HAIRCARE AND BEAUTY SERVICES (KKTC)**

#### **PROGRAM IN HAIRCARE AND BEAUTY SERVICES**

In the program students are training for the profession of hairdressing and beautician, hair styling, hair care, basic skin and body care techniques. In 2009-2010 academic year with the additional placement of students Hair Care and Beauty Services program started its education with academics and experts from the industry training staff qualified to deliver a higher quality service in this area, researchers and innovative qualified intermediate staff aims to educate. Graduate students will have very large business opportunities, according to their professional knowledge, skills and qualified individual characteristics that make a difference in the sector with scientific and technological developments.

#### **PROGRAM**

<b>I. SEMESTER</b>			
BİL 150	Fundamentals of Information Technology	4+0	5,0
İNG 187 (Eng)	English I	3+0	3,0
KOZ 204	Cosmetic Products	2+0	2,0
SGH 104	Microbiology and Hygiene	2+0	2,0
SGH 107	Makeup Basics	1+2	3,0
SGH 108	Hair and Skin Diseases	2+0	2,0
SGH 109	Skin Treatments	1+3	3,0
SGH 115	Hairdressing and Care I	2+2	4,0
TAR 165	Atatürk's Principles and History of Turkish Revolution I	2+0	2,0
TÜR 125	Turkish Language I	2+0	2,0
			<i>Elective Courses</i>
			-
			2,0
			30,0

<b>II. SEMESTER</b>			
İNG 188 (Eng)	English II	3+0	3,0
KİM 120	Fundamentals of Chemistry	2+0	4,0
SGH 112	Depilation	1+1	2,0
SGH 114	Plastic Makeup	1+2	3,0
SGH 116	Hairdressing and Care II	2+2	4,0
SGH 118	Massage	1+2	3,0
SGH 120	Hand-Foot and Nail Care	1+2	2,0
SGH 219	Body Treatments I	1+2	3,0
TAR 166	Atatürk's Principles and History of Turkish Revolution II	2+0	2,0
TÜR 126	Turkish Language II	2+0	2,0
			<i>Elective Courses</i>
			-
			2,0
			30,0

<b>III. SEMESTER</b>			
ANA 215	Fundamentals of Body and Physiology	2+0	3,0
SGH 220	Body Treatments II	1+2	3,0

<b>IV. SEMESTER</b>			
EST 202	Esthetics and Ethics	2+0	2,0
İŞL 209	Business Management	2+0	2,0

SGH 221	Special Massage Techniques	1+2	4,0
SGH 223	Permanent Makeup	1+2	4,0
SGH 225	Epilation	1+2	4,0
SGH 227	Hair Coloring I	1+3	4,0
SGH 229	Hair Cut I	1+2	3,0
	<i>Departmental Elective Courses</i>	-	5,0
			<hr/> 30,0

SGH 216	Installing Hair and Beard Construction Applications	2+1	3,0
SGH 222	Nail Decoration Techniques	2+1	4,0
SGH 224	Seminar	2+0	2,0
SGH 232	Hair Coloring II	1+3	4,0
SGH 234	Hair Cut II	1+2	3,0
	<i>Departmental Elective Courses</i>	-	10,0
			<hr/> 30,0

#### DEPARTMENTAL ELECTIVE COURSES

ÇGE 106	Diction and Body Language	2+0	3,0
ECY 219	Occupational Health and Safety	2+0	2,0
ECY 223	Infectious Diseases	2+0	3,0
KOZ 205	Skin Care with Natural Products	1+1	3,0
KOZ 206	Cosmetic Chemistry and Applications	1+1	3,0
SGH 205	Hair and Makeup Design on the Computer	1+1	3,0
SGH 226	Reflexology	1+2	5,0
SGH 230	Seasonal Hair and Makeup Design	1+2	5,0
SGH 236	Stage Makeup and Lens	1+2	5,0

#### ELECTIVE COURSES

ÇMH 201U	Conflict and Stress Management I	3+0	4,0
İLT 303U	Image and Reputation Management in Professional Life	3+0	4,0
İŞL 205U	Business Administration	3+0	5,0
KÜL 197	Life in Campus	0+2	4,0
KÜL 199	Cultural Activities	0+2	2,0
MÜZ 155	Turkish Folk Music	2+0	2,0
MÜZ 157	Traditional Turkish Art Music	2+0	2,0
SOS 155	Folkdance	2+0	2,0
THU 203	Community Services	0+2	3,0
TÜR 120	Turkish Sign Language	3+0	3,0

## DEPARTMENT OF HEALTH CARE SERVICES

### PROGRAM IN GERIATRIC CARE

Geriatric Care program leads an important role in social work area according to the the changes occurred in the mobility of world and our countries population due to young people population is reduced and the elderly population increased, also changes occurred into the traditional structure of family. In order to adapted students to become familiar with recent developments in the industry Geriatric Care Program principles and practices of elderly care are training with anatomy, physiology, and basic gerontology. Graduate students from this program can work in the area of elderly care services, Social Services and Child Protection Agency are carried out by municipalities, hospitals, non-governmental organizations, nursing homes, elderly nursing homes, dormitories and the powerless, day centers for the elderly, health applications for units, home care services, elderly home editing, etc.

#### PROGRAM

##### I. SEMESTER

ANA 104	Anatomy	2+0	3,0
ANA 108	Physiology	2+0	3,0
BİL 150	Fundamentals of Information Technology	4+0	5,0
ETK 103	Professional Ethics	2+0	2,0
İNG 187 (Eng)	English I	3+0	3,0
TAR 165	Atatürk's Principles and History of Turkish Revolution I	2+0	2,0
TÜR 125	Turkish Language I	2+0	2,0
YAB 103	Professional Terminology	2+0	3,0
YAB 117	Principles and Practices in Eldery Care I	3+1	5,0
	<i>Elective Courses</i>	-	2,0
			<hr/> 30,0

##### II. SEMESTER

İNG 188 (Eng)	English II	3+0	3,0
SAĞ 124	Public Health	2+0	2,0
TAR 166	Atatürk's Principles and History of Turkish Revolution II	2+0	2,0
TÜR 126	Turkish Language II	2+0	2,0
YAB 118	Principles and Practices in Eldery Care II	3+1	5,0
YAB 120	Drug İnformation	2+0	3,0
YAB 122	Fundamentals of Gerontology	2+0	4,0
	<i>Departmental Elective Courses</i>	-	4,0
	<i>Elective Courses</i>	-	5,0
			<hr/> 30,0

<b>III. SEMESTER</b>		
PSİ 235	Geropsychology	2+0 3,0
SAĞ 205	First Aid	2+0 3,0
SOS 220	Health Sociology	2+0 2,0
YAB 211	Gerontology Social Services	2+0 3,0
YAB 215	Communication with the Elderly	2+0 3,0
YAB 217	Elderly Nutrition	2+0 3,0
YAB 219	Knowledge of Disease	2+0 4,0
YAB 229	Principles and Practices in Eldery Care III	3+1 5,0
	<i>Departmental Elective Courses</i>	- 4,0
		30,0

<b>IV. SEMESTER</b>		
PSİ 214	Geropsychiatry	2+0 3,0
YAB 208	Aged Care Services at Home	2+0 3,0
YAB 216	Social Rehabilitation	2+0 4,0
YAB 224	Personal Care	1+1 3,0
YAB 230	Principles and Practices in Eldery Care IV	3+1 5,0
YAB 232	Physical Rehabilitation	2+0 4,0
YAB 234	Seminar	2+0 4,0
	<i>Departmental Elective Courses</i>	- 4,0
		30,0

#### **DEPARTMENTAL ELECTIVE COURSES**

ÇEV 322	Environment Health	2+0 3,0
ÇGE 106	Diction and Body Language	2+0 3,0
ECY 219	Occupational Health and Safety	2+0 2,0
ECY 223	Infectious Diseases	2+0 3,0
SHZ 106	Introduction to Social Work	2+0 3,0
TLT 202	Medical Waste	2+0 3,0
YAB 116	Wound Care	1+0 2,0
YAB 124	Successful Aging	2+0 3,0
YAB 222	Nutraceuticals	2+0 2,0
YAB 226	Occupational Therapy	1+1 2,0
YAB 228	Palliative Care	2+0 2,0

YAB 236	Exercise and Recreational Activities in the Elderly	1+1 2,0
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#### **ELECTIVE COURSES**

ÇMH 201U	Conflict and Stress Management I	3+0 4,0
KÜL 197	Life in Campus	0+2 4,0
KÜL 199	Cultural Activities	0+2 2,0
MÜZ 155	Turkish Folk Music	2+0 2,0
MÜZ 157	Traditional Turkish Art Music	2+0 2,0
SOS 155	Folkdance	2+0 2,0
THU 203	Community Services	0+2 3,0
TÜR 120	Turkish Sign Language	3+0 3,0

## **DEPARTMENT OF MEDICAL SERVICES AND TECHNIQUES**

### **PROGRAM IN MEDICAL LABORATORY TECHNIQUES**

The purpose of Medical Laboratory Techniques Program is to train students as medical laboratory technicians who can analyses medical situations for health institutions, laboratories and patient diagnosis centers. The program's graduates have the skillis of laboratory equipment, machinery, tools and equipment of medical materials, using biochemical, microbiological, pathological knowledge and they can make hematological analysis. Graduate students can work at various health facilities, private clinics and analysis laboratories, research centers, health organizations, institutes of sanitation and food industry enterprises.

#### **PROGRAM**

<b>I. SEMESTER</b>		
ANA 104	Anatomy	2+0 3,0
BİL 150	Fundamentals of Information Technology	4+0 5,0
İNG 187 (Eng)	English I	3+0 3,0
KİM 137	Fundamental of Chemistry	2+0 4,0
TAR 165	Atatürk's Principles and History of Turkish Revolution I	2+0 2,0
TLT 101	Medical Biology and Genetics	3+0 4,0
TLT 103	Laboratory Safety	1+0 2,0
TÜR 125	Turkish Language I	2+0 2,0
	<i>Departmental Elective Courses</i>	- 2,0
	<i>Elective Courses</i>	- 3,0
		30,0

<b>II. SEMESTER</b>		
ANA 108	Physiology	2+0 3,0
BİY 110	Fundamental of Microbiology	2+0 4,0
İNG 188 (Eng)	English II	3+0 3,0
KİM 130	Fundamentals of Biochemistry	2+0 4,0
TAR 166	Atatürk's Principles and History of Turkish Revolution II	2+0 2,0
TLT 104	Clinical Microbiology Applications	1+2 4,0
TLT 106	Basic Laboratory Applications I	1+2 4,0
TÜR 126	Turkish Language II	2+0 2,0
	<i>Elective Courses</i>	- 4,0
		30,0

<b>III. SEMESTER</b>				<b>IV. SEMESTER</b>			
ETK 207	Professional Ethics	2+0	3,0	BİY 236	Cytology	2+0	5,0
KİM 267	Clinical Biochemistry and Applications	2+2	5,0	SAĞ 220	Public Health	2+0	5,0
TLT 203	Hematology	2+0	3,0	SAĞ 222	First Aid	2+1	3,0
TLT 213	Experimental Animals	2+0	3,0	TLT 214	Pathology	2+0	5,0
TLT 215	Parasitology	2+0	4,0	TLT 220	Health Services Management	2+0	3,0
TLT 225	Basic Laboratory Applications II	1+2	4,0	TLT 222	Biosafety in Medical Laboratories	2+0	3,0
TLT 227	Serological Techniques	2+0	2,0		<i>Departmental Elective Courses</i>	-	6,0
	<i>Departmental Elective Courses</i>	-	6,0				<u>30,0</u>
			<u>30,0</u>				

#### **DEPARTMENTAL ELECTIVE COURSES**

BİY 238	Microscopy and Preparation Techniques	2+0	3,0
ECY 219	Occupational Health and Safety	2+0	2,0
ECY 223	Infectious Diseases	2+0	3,0
TLT 202	Medical Waste	2+0	3,0
TLT 216	Radiation Biology and Nuclear Medicine	2+0	3,0
TLT 217	Genetic Analysis	2+0	3,0
TLT 218	Blood Banking and Transfusion Medicine	2+0	3,0
TLT 221	Methods of Criminal Investigation	2+0	3,0

#### **ELECTIVE COURSES**

ÇMH 201U	Conflict and Stress Management I	3+0	4,0
KÜL 197	Life in Campus	0+2	4,0
KÜL 199	Cultural Activities	0+2	2,0
MÜZ 155	Turkish Folk Music	2+0	2,0
MÜZ 157	Traditional Turkish Art Music	2+0	2,0
SOS 155	Folkdance	2+0	2,0
THU 203	Community Services	0+2	3,0
TÜR 120	Turkish Sign Language	3+0	3,0

## **DEPARTMENT OF PHARMACY**

### **PROGRAM IN PHARMACY SERVICES**

Pharmacy Services is the first program in the field of pharmacy education in our country in terms of the health sector exemplifies. The graduate students that received training according to the nature of the department can work as well as qualified people in the private sector and public sector.

#### **PROGRAM**

<b>I. SEMESTER</b>				<b>II. SEMESTER</b>			
BİL 150	Fundamentals of Information Technology	4+0	5,0	ANA 114	Basic Anatomy	2+0	4,0
BİY 131	Basic Biology	2+0	3,0	ANA 124	Basic Physiology	2+0	4,0
ECY 105	Occupational Terminology	2+0	3,0	BİL 176	Professional Computer	2+1	3,0
ECY 107	Introduction to Pharmacy Technician	3+0	3,0	ECY 106	Principles of Pharmacy Services and Code of Ethics	2+0	4,0
İNG 187 (Eng)	English I	3+0	3,0	ECY 108	Pharmacy Practice Laboratory Services	1+2	2,0
MAT 134	Vocational Mathematics	3+1	4,0	İNG 188 (Eng)	English II	3+0	3,0
SAĞ 203	Basic Public Health	2+0	3,0	KİM 116	Basic Chemistry	2+1	4,0
TAR 165	Atatürk's Principles and History of Turkish Revolution I	2+0	2,0	TAR 166	Atatürk's Principles and History of Turkish Revolution II	2+0	2,0
TÜR 125	Turkish Language I	2+0	2,0	TÜR 126	Turkish Language II	2+0	2,0
	<i>Elective Courses</i>	-	2,0		<i>Elective Courses</i>	-	2,0
			<u>30,0</u>				<u>30,0</u>

### III. SEMESTER

BİY 237	Basic Microbiology	2+0	4,0
ECY 207	Hospital Pharmacy Technicians	1+0	2,0
ECY 209	Basic Information on Diseases	2+0	4,0
ECY 217	Basic Calculation in Pharmacy	2+0	4,0
ECY 221	Practical Drug Information I	3+0	4,0
KİM 263	Basic Biochemistry	2+0	5,0
SAĞ 205	First Aid	2+0	3,0
	<i>Departmental Elective Courses</i>	-	4,0
			<hr/> 30,0

### IV. SEMESTER

ECY 210	Natural Products	2+1	4,0
ECY 212	Drug Intoxication	2+0	4,0
ECY 214	Health Psychology	2+0	3,5
ECY 216	Pharmacy Registration And Inventory Management	2+0	3,0
ECY 222	Practical Drug Information II	3+0	4,0
ECY 224	Drug Forms and Medical Supplies	3+0	3,0
İLT 201	Interpersonal Communication	3+0	4,5
	<i>Departmental Elective Courses</i>	-	4,0
			<hr/> 30,0

### DEPARTMENTAL ELECTIVE COURSES

ECY 213	Non-prescription Drugs	1+0	2,0
ECY 215	Basic Immunology	2+0	2,0
ECY 218	Pharmacovigilance	1+0	2,0
ECY 219	Occupational Health and Safety	2+0	2,0
ECY 220	Rational Drug Use	1+0	2,0
ECY 223	Infectious Diseases	2+0	3,0
ECY 226	Drug Application Skills	1+0	2,0
İKT 222	Health Economy	2+0	2,0
İŞL 109	Introduction to Business	2+0	2,0
YAB 222	Nutraceuticals	2+0	2,0

### ELECTIVE COURSES

ÇMH 201U	Conflict and Stress Management I	3+0	4,0
İŞL 205U	Business Administration	3+0	5,0
KÜL 197	Life in Campus	0+2	4,0
KÜL 199	Cultural Activities	0+2	2,0
MÜZ 155	Turkish Folk Music	2+0	2,0
MÜZ 157	Traditional Turkish Art Music	2+0	2,0
SOS 155	Folkdance	2+0	2,0
THU 201	Community Services	0+2	2,0
TÜR 120	Turkish Sign Language	3+0	3,0

### COURSE CONTENTS

#### **ANA 104 Anatomy** 2+0 3,0

Used in anatomy and the status indicates Order; the major axis and the plane is defined; Bone Structure, Types of joint and muscle of the General Features Description; Tissue Structure (epithelium, connective tissue, cartilage, bone); upper limbs bone, joint and muscle of lower limbs bones, joints and muscles; Back and Body of the bones, joints and muscles; Peripheral Nervous System, Circulatory System, Respiratory System, Digestive System, Urinary System, Genital System, Endocrine System, Central Nervous System, Sense Organs.

#### **ANA 108 Physiology** 2+0 3,0

Cell Physiology, Definitions; Blood Physiology; Deposit Physiology, Nervous System Physiology; Circulatory System Physiology; EKG, Respiratory System Physiology of the Digestive System Physiology of the Urinary System Physiology, Reproduction and Life Height Physiological Changes; Endocrinology, Central Nervous System, Metabolism and Nutrition.

#### **ANA 114 Basic Anatomy** 2+0 4,0

Basic Terms and Concepts in Anatomy; Cell Structure and Types; Skeletal System; Muscular System; Blood and Fluid-electrolyte; Anatomy of the Heart and Vascular Structures; Anatomical Structure of Upper and Lower Respiratory Tract; Anatomical Structure of Thorax and Breast; Anatomical Structure of the Central Nervous System; Peripheral Anatomical Structure of the Peripheral Nervous System;

Sensory Organs; Structure of Pituitary Gland and Other Parts of the Endocrine System; Digestive Tract Organs: Structure of organs and glands of the digestive system; Urogenital System: Structures of the female urogenital system, Structures of the male urogenital system.

#### **ANA 122 Human Physiology** 4+0 6,0

Cell Physiology, Definitions; Blood Physiology; Muscle Physiology; Nervous System Physiology; Physiology of the Circulatory System; EKG; Physiology of the Respiratory System; Physiology of the Digestive System; Physiology of the Urinary System; Reproduction and Physiological Changes During Life; Endocrinology; Central Nervous System; Metabolism and Nutrition.

#### **ANA 124 Basic Physiology** 2+0 4,0

Basic Concepts and Terms in Physiology: Functions of the Cell; Respiratory Mechanics: Transport of oxygen and carbon dioxide in blood, Functions; Functions of the Heart: Blood circulation, Lymph circulation; Blood and Fluid-Electrolytes; Central Nervous System; Peripheral System; Endocrine System; Urinary System; Digestive System; Sensory Organs; Circulatory System; Reproductive System; Motion System.

#### **ANA 215 Fundamentals of Body and Physiology** 2+0 3,0

Basic Terms and Concepts in Anatomy; Cell Structure and Types; Skeletal System; Muscular System; Anatomical Structure of Upper and Lower Respiratory Tract; Sensory

Organs; Urogenital System; Basic Terms and Concepts in Physiology; Functions of the Heart: Blood circulation, Lymph circulation; Blood and Fluid-Electrolytes; Central Nervous System, Peripheral System, Endocrine System, Urinary System, Digestive System, Circulatory System, Reproductive System..

**BEÖ 155 Physical Education 2+0 2,0**

Definition of Physical Education and Sports; Aims, Disadvantages of Inactive Life; Various Activities for Physical Education; Recreation; Human Physiology; First Aid; Sports Branches: Definition, Rules and Application; Keep Fit Programs.

**BİL 150 Fundamentals of Information Technology 4+0 5,0**

Introduction to Computer: History of Computer; Operating Systems: Introduction to operating systems; Office Software-Word Processors and Document Systems: General Characteristics of the Office Software; Office-Software-Spreadsheets Programs: Spreadsheets Programs; Office Software-Presentation Programs: Presentation Programs; E Mail-Personal Communication Management: General Characteristics of the E Mailing System; Effective use of the Internet and Internet Security; Network Technologies. Computer Hardware and Error Detection: Types of Computers; Social Networks and Social Media: Social Media and Introduction to Social Media; Special Application Software: Multimedia; Law and Ethics of Informatics: Intellectual Property and Informatics Law; E-Learning: Developments in E-Learning; E-Government Applications; Computer and Network Security; Latest Strategic Technologies of Informatics: Factors Affecting Technological Developments.

**BİL 176 Professional Computer 2+1 3,0**

The presentations will be prepared for skill development. Students will use variety of reports in MS Office programs, will learn to browse the links at the library to be used in the pharmacy literature and a number of computer applications will be shown. Basic Computer Programs and Pharmacy Automation Programs will be used. Modules of Social Security Provisions in the pharmacy will be used.

**BİY 110 Fundamental of Microbiology 2+0 4,0**

Microbiology: Scope, Sub-branches, History, Nomenclature; Composition of Microbial Realm; Microorganism Groups; Morphology; Prokaryotic Cell Structure and Its Function; Eukaryotic Cell Structure and Its Function; Microbial Nutrition; Microbial Reproduction; Factors Affecting Reproduction: Culturation, Ways of reproductive measurement; Practical Applications: Laboratory tools, Equipment, Mediums, Painting, Sterilization - Disinfection methods; Metabolism; Genetics; Mutation; Recombination; Normal Flora; Antimicrobial Agents; Chemotherapy; Antibiogram Tests; Viruses; Fungi; Protozoa; Algae; Diagnosis of Infectious Diseases.

**BİY 123 Microbiology 2+0 3,0**

Basics of Microbiology; Safety in Microbiology; Aseptic Techniques; Computing Methods (Direct Calculation Techniques, Culture Techniques, etc.); Coloring Techniques; Microbial Cell Structure and Its Functions; Microbial Cell Development; Characterization of Bacterial Growth; Factors Affecting the Development and Survival of Microorganisms; Properties of Bacterial Spores; Disinfection and Sterilization; Microbial Pathogenicity and Disease Propagation Mechanism.

**BİY 125 Genetics and Molecular Biology 4+0 6,0**

The Concept of Cell and Chemical Components of the Cell; Properties and Functions of the Cell Membrane; General Characteristics of Cell Organelles; Information on Genetics: Structure and functions of DNA, Structure of chromatin, DNA replication, Structure and Functions of RNA; Types of RNA; Genetic Information Flows; Genome Organization; Cell Cycle and Control; Basic Principles of Heredity; Definition and Types of Mutation; Physical and Chemical Mutagens; DNA Repair Mechanisms; Molecular Bases of Genetic Diseases.

**BİY 131 Basic Biology 2+0 3,0**

The Material Basis of Life; Formation of Living Organisms; Cell Formation; Difference between Living and Non-Living Cells; Acquisition of Cell and Energy; Human Cell Structure; Organelles and Their Functions; Cell Physiology, Cell Metabolism; DNA Structure and Genetic Code; Cell Division: Stages of cell division by mitosis and meiosis; Cell Inheritance.

**BİY 236 Cytology 2+0 5,0**

Evolution of the Cell: Evolution and characteristics of prokaryotic and eukaryotic cells; Chemical Structure of the Cell: Inorganic and organic composition of the cell; Cell Membrane: Structure and functions of the cell membrane, Transitions in the cell membrane, Types of cell and cell matrix connections; Double-membrane Organelles: Structure and functions of the nucleus, Structure and functions of mitochondria and chloroplast; Single-membrane Organelles: Endoplasmic reticulum, Golgi apparatus, Structure and functions of lysosome and peroxisome; Non-membranous Cells: Ribosome, Centrosome; Structure and Functions of Cytoskeleton.

**BİY 237 Basic Microbiology 2+0 4,0**

Microbiology and Its Areas of Use; Microbial Nutrition; Reproduction, Microbial Reproduction Control; Routes of Microbial Transmission; Microbial Prevention: Vaccines and Immunization; Normal Flora Regions and Microorganisms; Groups and General Characteristics of Microorganisms: Bacteria-Fungus, Virus structure and differentiation; Microorganisms and Antibiotics; Resistance Pathways; Basics of Immunology; Contamination; Hygiene and Sanitation.

**BİY 238 Microscopy and Preparation Techniques** 2+0 3,0

Structure of Microscope; Technical Description of Microscopes; Parts of Microscope; Microscope Types: Stereo microscope, Dark field microscope, Phase-contrast microscope, Inverted microscope, Fluorescence microscope, Polarizing microscope, Interference microscope, Electron microscope, Confocal microscope, Sound microscope; Examination of Medical Materials: Fixation, Tissue processing, Painting; Immunohistochemical Examinations; Cytopathologic Examinations; Enzymatic Histochemical Examinations; Investigations of Biological Materials; Painting Methods; Cell Counting Methods.

**BMB 101 Introduction to Biomedical Science I** 3+0 4,5

Science, and Scientific Method; Cell Structure; Prokaryotic, and Eukaryotic Cells; Cell Functions; Cell Membranes; Cell Organelles; Biology Central Dogma, Protein Synthesis; Genetics: Cell life cycle and basic heredity, Genome (DNA, genes and chromosomes); Genotype and Phenotype; Genetic Basis of Diseases; Tissues and Classification of Tissues; Organs and Systems Biology.

**BMB 102 Introduction to Biomedical Science II** 3+0 4,5

Human Anatomy; Introduction to Pathology: Materials used in a pathology laboratory, Laboratory techniques in pathology; Cell Injury, Necrosis and Adaptation; Acute and Chronic Inflammation; Cell Regeneration and Wound Healing; Regulation of Body Fluids; Hemodynamic Disturbances; Human Diseases and Control of Human Diseases; Chemicals and Human Health; Introduction to Cancer Biology.

**BMB 103 Practice in Biomedical Sciences I** 0+3 4,5

Laboratory Safety; Laboratory Techniques; Biomedical Instruments; Types of Microscopes and Their Characteristics; General Properties of the Cell (Unicellular Organisms, Multicellular Organisms); Diffusion and Osmosis; Mitotic Cell Division and Meiosis; General Properties of Enzymes; Epithelium Tissue (Epithelium, Gland Epithelium); Connective Tissue (Connective Tissue Cells, Connective Tissue Fibers); Cartilage Tissue (Hyaline Cartilage, Elastic Cartilage, Fibrocartilage); Bone Tissue (Microscopic Structure of Compact Bones, Bone Cells); Blood Tissue (Erythrocytes, Leukocytes, Agranulocytes, Granulocytes, Thrombocytes); Muscle Tissue (Smooth Muscle Structure, Skeletal Muscle Structure, Cardiac Muscle Structure); Nerve Tissue (Nervous Cells, Neuroglia Cells).

**BMB 104 Practice in Biomedical Sciences II** 0+3 4,5

Determining Blood Types; Counting Blood Cells (Counting Erythrocytes and Leukocytes); Earthworm Dissection (Morphology and Anatomical Structure); Frog Dissection (Morphology and Anatomical Structure); Preparations of Unicellular Organisms; Histolytic Preparations: Taking crosscut, Making permanent preparations; Microphotography; Measurement and Drawing Techniques; Sheep Brain Dissection; Sheep Heart Dissection; Eye Dissection; Biomedical Modeling.

**BMB 105 Cytology, Hematology and Immunology** 4+0 6,0

Eukaryotic Cell Structure and Its Function; Major Components of Cells; Role of Enzymes in Cellular Processes; Energetics and Major Catabolic Pathways; Cell Growth Cycle; Control and Regulation of Differentiation; Blood Morphology; Measurement of Plasma and Serum Components; Molecular Diagnostics in Hematological Testing; Innate Immunity; Structure and function of Adaptive Immune System.

**BMB 106 Mechanism of Drug Action** 4+0 6,0

Principles of Drug Administration; Absorption, Distribution, Metabolism, Excretion; Drug Side Effects; Effects of Drugs on Parasympathetic, Somatic, Sympathetic and Central Nervous Systems; Targets of Drug Effect; Receptor Theories: Ligand-controlled ion channels, G-protein coupled receptors, Kinase-linked and-associated receptors, Nuclear receptors, Control of the receptor expression; Ion Channels as a Drug Target; Regulation of Intracellular Calcium Levels.

**ÇEK 210 Health Insurance and Social Security Applications** 2+0 3,0

Private and Public Health Finance Sources; Definition and History of Health Insurance; Definition of Insurance; Concept of Health Insurance; History of Health Insurance; Emergence Reasons of Health Insurance: Health Insurance Applications in Turkey (Social Insurance Institution, Pension Fund, Bag-Kur); Health Insurance and Problems faced in Application, General Health Insurance and Turkey; General Health Insurance Studies; Personal Health Insurance System Social Security Concept; Definition of Social Security and Conditions causing Social Security; Factors defining Concept of Social Security; Income Sources and Payments of Social Security; Social Security Funds; Public Service-Social Security Relations; Place of Health Insurance Inside Social Security.

**ÇEV 322 Environment Health** 2+0 3,0

Concept of Environment Health: Definition, Subjects, Characteristics; Environment, Human and Health Relation: Ecology of humans, Disease and environment relations, Social, cultural and economical effects; Concept of Environmental Disease and Toxicology: Risk evaluation, Risk transmission; Water, Air and Health Relation: Healthy drinking and usage water, Causes and kinds of water and air pollution, Infection diseases caused by water and air, Control of these diseases, The situation in Turkey; Others Types of Pollution: Soil, Food, Noise, Radioactive material; Urbanization and Health: Urban health, Project of healthy cities; Environmental Health Legislation in Turkey and in the European Union.

**ÇGE 104 Description of Guidance and Counseling Course** 2+0 2,0

Introduction to Guidance and Counselling: Subject matter, Aim, Principles and Limitations of guidance, Related fields; Reasons for Guidance: Social change, Automatic development, Subculture of youthfulness, Impossibilities of school, Developmental tasks; Fundamental of Guidance;

Group Approach in Guidance and Counselling: Aim of group approach in guidance and counselling, Reasons for using group approach in guidance and counselling, Application fields of group approach, Services provided by group approach, Methods of group approach; Assessing and Understanding The Individual: Techniques for assessing and understanding the individual, Self report techniques, Observation and techniques based on observation, Techniques based on observation, Techniques based on measurement, student's personal files; Guidance and Counselling Applications in Schools.

**ÇGE 105 Drama in Education 3+0 4,0**

Definition of Drama; Differences and Similarities Among Types of Drama; History of Educational Drama; Importance and Benefits of Play and Drama in Child Development and Education; Drama Technique; Types of educational drama; Placement of Educational Drama Activities into Daily and Weekly Plan in Preschool Education: Utilizing drama as learning and living, Getting confidence, According, Using five sense, Developing observation ability, Setting game; Detection of Individual and Group Creativeness.

**ÇGE 106 Diction and Body Language 2+0 3,0**

Sentences (Word Flow): Syllable structure, Syllabification exercises, Passage reading exercises, Meaning conflicts in text, Points to consider in word flow, Verbal punctuation ; Expression : Style, Types of styles, Clarity; Verbal Power: Definition of verbal power, Exercises on powerful expression; Sign: Definition of sign and symbol, Exercises on symbolic expression; Politeness: Expressing politeness, Responsiveness in verbal interactions, Motion and body movements in verbal expression, Meanings and use of body language; Mimicking Verbal Styles: Exercises on mimicking, Role play activities.

**ÇGE 107 Child and Music 3+0 5,0**

Music Repertory; Music Compilation; Music Education; Planning and Implementation of Music Activities; Planning and Implementation of Musical Activities for Children with Special Needs; Basic Concepts; Effects of Music Activities on Child Development; Importance of Music in Early Childhood Education; Planning Music Activities in Preschool Education; Types of Music Activities; Rhythm Instruments Used in Music Activities; Principles for the Use of Rhythm Instruments; Instruments: Types of instruments, Importance of instruments in preschool music activities.

**ÇGE 110 Learning and Teaching Techniques 2+0 4,0**

Development and Learning Preschool Education; Development and Developmental features; Developmental principles; Factors affecting development; Developmental stages; Learning; Learning characteristics in Preschool education; Learning stages; Learning types; Factors affecting learning; Learning Theories; Behavioral Approach in Learning Theory; Cognitive Learning Theory; Social Learning Theory; Learning through game Theory.

**ÇGE 111 Inclusive Education 2+0 4,0**

Inclusive Education; Definition; Aim; Principles of Inclusion; Mainstreaming the Development Process of education in our Country and the World; Mainstreaming the legislation and practices related to education; Inclusive Education Task Area Personnel and Facilities; Inclusive Education Importance of Team Work; Inclusive Education Benefits; Inclusive Education for the Child's Developmental; Student Placement Process in Mainstreaming Environment Education; Inclusive Education in Preschool Education; Inclusive Education in Primary Education; Inclusive Education in Secondary Education; Inclusive Education in Higher Education.

**ÇGE 112 Family Education 2+0 4,0**

Family Education: Importance of family education, Family education objectives, Need for family education, Family education and its effects on children, Impact on families, Effects on teacher and school; Family Preparation Training Program, Working with Families, Preschool Education Studies in Education; Family Education Event File Preparation; Family education file review activity, Family education event file creation, Family education activities.

**ÇGE 118 Child Recreation and Entertainment 2+0 3,0**

Recreation Activities: Determining recreation activities, Preparing recreation activities, Performing recreation activities; Implementation of a Recreation Program; Face Painting; Recreational Costumes: Costume design, Costume sewing; Importance of Recreation and Entertainment for Children; Computer-assisted Recreation Activities; Camera and Camera Use; Music Selection in Recreation Activities.

**ÇGE 120 Personal Development 3+0 4,0**

Concept of Communication; Communication in Workplace, Principles of Interpersonal Communication, Behavioral Patterns, Vocational Qualifications; Professional Quality; Self-Esteem; Self-concept; Application Fields: Guidance and psychological development counseling, Self-awareness, Interpersonal communication, Empathy and listening skills, Developing self-confidence, Sense of loneliness and coping with rejection, Coping with the fear of future.

**ÇGE 121 Child Development I 3+0 4,0**

Basic Concepts Related to Development: Growth, Maturation; Learning, Development, Availabilitiveness, Critical period, Education; Basic principles related to development; Factors affecting development, Hereditary factors, Environmental factors; Development Periods and Development Duties: Physical Development, Importance and properties of physical development at 0-12 age children, Psycho-motor development, Importance, Basic concepts, Psycho-motor development at 0-12 age children and properties, Psycho-motor development at juvenile age and properties, Mental Development, Importance, Basic concepts, Effective factors, Piaget's theory of cognitive development.

**ÇGE 122 Child Development II 3+0 4,0**

Language Development: The important, Affecting factors, Development stages, Opinions with the relevant of language acquisition, Relationship between mind and language development; Emotional Development: The importance, the basic concepts, Features of emotional development in children of 0-12 years; Social Developmental: The important, the basic concepts, Social developmental characteristics of adolescence, Erikson's psychosocial theory-social development; Sexual Development: The importance, Basic concepts, Freud's theory of personality and sexual developmental stages, Sexual development in adolescence; Moral Development: The importance, the basic concepts, Kolberg and Piaget's theory moral development.

**ÇGE 124 Science and Technology on Childhood 3+0 4,0**

Preschool Science Education: Basic concepts, Science process skills, Basic sciences areas, Methods and techniques, Planning and implementation activities Science; The importance of Technology in Education; Teacher's Role in the Use of Technology in Education; Technology Competencies of Early Childhood Teachers; Development and Learning Effects on the Computer; Results of the Use of Technology in Education; Software Programs and Qualifications of Preschool Education; Technology Supported Early Childhood Education Activities; Computer Technology Advantages for Individuals with Special Needs.

**ÇGE 216 Seminar 2+0 4,0**

Research Process and Techniques; Determining Research; Scanning Resources Related to Research Problem; The importance of the Research Put Forward; Interpreting the Results; Reporting to the Research Process; Research Report on the Sun; Evaluate; Areas Subject to Contribute With Relevant Current and Process Study of Education, Research Methods to Prepare to be Appropriate; Community Front to Understand; To Discuss and Improve Communication Skills.

**ÇGE 222 Child Mental Health and Adjustment Disorders 2+0 3,0**

The Concept of Child Mental Health; Theories About Child Mental Health and Approaches; Adjustment and Behavior Problems: Conduct disorders, Language disorders, Attention deficit hyperactivity disorder, Learning disabilities, Autism, Depression in child, Anxiety disorders in child: Child Mental Health Interventions: Role of family, Role of school and teachers, Social and cultural effects: Prevention in Child Mental Health.

**ÇGE 223 Child Nutrition 2+0 4,0**

Nutrition: Stages of Child Nutrition; Metabolism: Energy metabolism, Energy requirements; Nutrition Facts: Proteins, Fats, Carbohydrates, Mineral substances, Vitamins, Water; Nutrition in Pregnancy; Nutrition for the Breastfeeding Mothers; Mother's milk: The benefits of breast milk , Comparisons of breast milk and cow's milk, Techniques of breastfeeding, Keeping breastfeeding, Termination of breast feeding; Mixed Nutrition; Starting with Additional Nutrients; Artificial Nutrition; Feeding with Cow's Milk; Eating Disorders, Diet in Special Cases and Illness: Feeding

of premature babies, Anorexia and eating deviations, Food Allergies, Food poisoning, Diarrhea , Dietary regulations for sick children; Dairy Food for Children; School Children and Nutrition; Nutrition in Adolescence.

**ÇGE 225 Child Rights and Society 2+0 2,0**

Introduction; Definition of children rights; International legal frame of children rights; Economic and social rights of children; State, family and child: the balance of rights and responsibilities; Consequences of the violation of children rights on child health: child workers; child soldiers; disabled children; physical, sexual and psychological abuse of children; Abandonment of children; Child abuse and neglect: recognizing and assessing the basic signs, ?Munchausen by proxy? syndrome (MBPS); Theoretical approaches towards child abuse and neglect; Racial, ethnic, gender related and religion related discrimination towards children the consequences of discrimination on child health; Social work for children; violation of child rights and child health in Turkey.

**ÇGE 229 Art and Creativeness in Childhood 3+0 2,0**

Definition of Art and Creativity; Theories Related to Creativity; Creativity and Art Education; Relations of Cognitive, Social and Physical Development with Creativity; Expression of Ideas and Emotions in Different Ways; Line, Perspective and Color in Children's Painting; Improving Creativity with Different Materials; Story Completion; Lyric Narration; Creative Games and Music; Gaining Aesthetic Values; Boosting Interest in Art and Creativity Activities.

**ÇGE 237 Communication with Children 2+0 3,0**

Concept of Communication Concepts and Various Models of Communication; Children's Emotional Needs; Child Rearing Styles and Their Developmental Effects; Components of Effective Communication; Approaches to the Prevention of Incompatible Behavior; Acquisition of Safe Behavior; Importance of Effective Communication Skills for Effective Teaching; Effective Listening; ?I? and ?You? Messages: Conflict and resolution, Disciplinary methods; Guidance and Psychological Development Counseling; Self-Recognition; Interpersonal Communication; Empathy and Listening Skills; Effective Communication between Family and Child: Effective communication techniques with parents; Communication in Business Life.

**ÇGE 241 Child and Game 2+0 3,0**

Definition of Game; History of Game; Game Theories: Development of the game according to Formalists; Importance and Place of Game in Education; Types and Features of Games: Games by structure; Games by tools used; Planning Game Hours; Games for Children with Learning and Adaptation Problems; Developing Sample Game, Developing Game Repertory; Compiling Games; Developing Game Activities; Game Activities in Special Education.

**ÇGE 243 Practice at Pre-school Education Institutions I 1+4 5,0**

Physical, Social and Educational Environment Features of Pre-school Education Authority; Underlying Theoretical Foundations of Early Childhood Education Program; Characteristics of preschool education program, Components of pre-school education, Teachers in early childhood education, Activities in Pre-School Education: Leisure time activity planning, Leisure time activity application, Turkish activity planning, Turkish activity application, Drama activity planning, application, Music activities planning-application.

**ÇGE 244 Practice at Pre-school Education Institutions II 1+4 5,0**

Games Event Planning-Application: Science events planning - application, Math activities-planning applications, Reading and writing work-planning applications, Field trip-planning applications; Monthly Training Plan; Day Training Flow; Evaluation of Pre-School Education; Making the Case Planning; Making the Case Study; Example Plan Document Preparation.

**ÇGE 245 Material Development at Pre-school Education Institutions 2+0 3,0**

Material in Preschool Education: Material design, Audio editing posts, Importance of teaching materials use in preschool; Teaching Material Practices in Early Childhood; The importance of Tools and Materials in Education; Instructional Tools and Materials Selection; Visual Materials Design: Features of visual design elements, Visual design principles; Instructional Materials and Effective Use; Evaluation.

**ÇGE 247 Special Education I 3+2 5,0**

Basic Concepts in Special Education; Description; The importance; Role of Health Personnel Roles and Responsibilities in Special Education; Education of Children with Special Needs Related to the Organization and Legislation; Inclusion and Special Education Support Services; Family Education; Staff in Special Education; Family and Teacher Collaboration; Early Childhood Special Education; Mentally Handicapped Children.

**ÇGE 248 Special Education II 3+2 5,0**

Children with Learning Difficulties; Description, The importance; Children with Autism Spectrum Disorders; Description, The importance; Hearing Impaired Children; Description, The Importance; Visually Impaired Children; Description, The Importance; Children with Speech and Communication Disorders Province; Description, The Importance; Children with Physical Disabilities; Description, The Importance; Gifted and Talented Children; Description, The Importance.

**ÇGE 249 Early Childhood Environmental Education 3+0 4,0**

Concepts of Environment and Environment; Relationship Between Human and Environment; Environmental Behavior Theory; Psychological Effects on the natural environment

and Theories of Human Subjects; Sustainable Schools; Environmental Education in Early Childhood; Importance; Learning Models in Environmental Education - Methods and Techniques; Considerations Points in Environmental Education; Environmental Education Related Activities to Plan. Implementing Environmental Education Related Activities.

**ÇGE 251 Early Invervention Program 3+0 4,0**

Introduction to Early Intervention; Historical Development of Early Intervention Programs; Implementation and Evaluation in Early Intervention Programs; Preventive Early Intervention Programs; Early Intervention Programs for Developmental Risks; Early Intervention Programs for Socioeconomic Risks; Current Issues in Early Intervention Practices in the World and Turkey.

**ÇMH 201U Conflict and Stress Management I 3+0 4,0**

Nature of Conflict: Definition, Types and Process of Conflict: Introduction, Definition of the Concept of Conflict, Causes and Consequences of Conflict: Introduction, Factors leading to a conflict, Conflict Management: Introduction, Conflict management, Negotiation in Conflict Management: Mediation in Conflict Management; Controlling Anger in Conflict Management; Communication in Conflict Management; Leadership Styles in Conflict Management.

**ECY 105 Occupational Terminology 2+0 3,0**

Drugs and Routes of Administration; Pharmacological and Biochemical Concepts on Prescriptions; Medical Terminology Used in Practices of Pharmacy Technicians: Terms related to pharmacology, Terms related to pharmacognosy, Terms related to pharmaceutical chemistry, Terms related to pharmaceutical technology, Terms in Law No. 6197, Terms used in orders from repositories; Units of Measurement Used in Pharmacy.

**ECY 106 Principles of Pharmacy Services and Code of Ethics 2+0 4,0**

Basic Concepts; Related Legislation: The Constitution, Turkish Penal Code, Law no. 6197 on pharmacists and pharmacies; Law no. 1262 on pharmaceuticals and medical preparations, Law and regulation on cosmetics, Law no. 2313 on the control of narcotic drugs, Law on basic health services, Law on consumer protection, Regulation on pharmacists and Pharmacies, Regulations on patient rights, Decree on drug prices; Instructions on Budgetary Procedures; Concept of Ethics: Ethics and morality, Ethics and the law, Professional ethics and codes; Social Behavior.

**ECY 107 Introduction to Pharmacy Technician 3+0 3,0**

Definition and Parts of Pharmacy; Pharmacy Staff and Auxiliary Staff; Pharmacy Technician: Definition, Missions, Work places, Responsibilities; Drug Nomenclature; Organization of Drugs; Drug Expiration Date, Temperature, Light and Moisture on the Effect of Drugs; Filing of Documents; Prescription and Non-prescription Medications: Colorful prescription drugs covered, Professional disclosure of terms and concepts; Codex Definition and

Pharmacopoeia; Pharmaceutical Distribution Channels; Prescription Control; Pharmacy Automation Programs.

**ECY 108 Pharmacy Practice Laboratory Services** 1+2 2,0

Demonstration, Pharmaceutical Chemistry Laboratory substances, materials and equipment identification, laboratory work safety, working with chemicals, weighing, mixing, heating, cooling, adjusted solution preparation and adjustment of the liquid drug form preparation, semi-solid pharmaceutical form preparation, the liquid medicine controls and semi-solid dosage forms. Majestral pharmaceutical preparation techniques. Herbal teas, preparation methods- infusion, decoction, work to prepare sterile products.

**ECY 207 Hospital Pharmacy Technicians** 1+0 2,0

Duties and Responsibilities of Hospital Pharmacy Technicians; Hospital Organization; Pharmacy Organization: Duties and Responsibilities of Pharmacy Staff; Inventory Control; Drug Stockpiling; Drug Dispensing; Safety in the Pharmacy; Control of Drug Expiration Dates; Software Used in the Hospital Pharmacy; Prescription Drug Coverage; Relations with Other Units of the Hospital; The Cold Chain.

**ECY 209 Basic Information on Diseases** 2+0 4,0

Fluid and Electrolyte Balance and Imbalance; Acid-Base Balance and Imbalance; Oncologic Disorders; Blood Disorders; Heart Diseases; Kidney Diseases; Shock; Allergic Diseases; Respiratory System Diseases; Nervous System Diseases; Endocrine System Disorders; Digestive System Diseases; Joint and Skin Diseases; Musculoskeletal Diseases; Common Elderly Diseases; Pregnancy and Labor.

**ECY 210 Natural Products** 2+1 4,0

Phytotherapy; Aromatherapy; Homeopathy and Nutraceuticals; Phytotherapy and Explanation of Phytopharmaceutical Terms; Extraction Methods; Difference between Nutraceuticals and Phytopharmaceuticals; Medical Teas: Preparation and Use; Herbal Raw Materials of Drugs Used for Digestive Diseases; Herbal Raw Materials of Drugs Used for Cardiovascular Diseases; Herbal Raw Materials of Drugs Used for Respiratory System Diseases; Anti-Aging; Natural Sources Used for Dermatological and Rheumatic Diseases; Natural Cosmetics and Products; Quality Control of Natural Products.

**ECY 212 Drug Intoxication** 2+0 4,0

Toxic Effects of Drugs; Drug-Drug Interactions; General Principles of Acute Drug Intoxication; General Concepts of Toxicology; Pharmacokinetic and Pharmacodynamic Drug Interactions; Drug-Alcohol Interactions; Safe Drug Use in Pregnancy and Senility; Safe Drug Use in Childhood; Toxic Effects Due to the Use of Antibiotics and Chemotherapeutics; Toxic Effects Due to the Use of Cardiovascular Drugs; Toxic Effects Due to the Use of Central Nervous System Drugs; General Principles of the

Treatment of Acute Drug Intoxication; Substance Abuse and Doping.

**ECY 213 Non-prescription Drugs** 1+0 2,0

Definition of Over-the-Counter Drugs; Over-the-Counter Drug Market in Turkey; Over-the-Counter Drugs in the World; The Concept of Non-prescription Medication; Non-prescription Drug Indications; Side Effects of Non-prescription Drugs; Weight Loss Drugs; Non-Drug Products Sold in Pharmacies; Vitamin Shops; Sale of Herbal Medicines and Safety Issue; Sales of Baby Products: Pacifier, Baby Food, Baby Diapers, Baby Bottle.

**ECY 214 Health Psychology** 2+0 3,5

Study Topics in Health Psychology; Concepts of health, disease, chronic illness, Patient-care team relationships; Relationship Between Stress and Health; Psychoimmunology, Effects on health of stress, Coping with stress management; Relationship Between Health and Personality; Traumatic Life Events and Disease; Problems Experienced by the Relatives of Patients with Chronic Diseases.

**ECY 215 Basic Immunology** 2+0 2,0

History and Scope of Immunology; Terminology of Immunology; Immune System; Organs of the Immune System; Cells of the Immune System; Mechanisms of Active Immunization; Mechanisms of Passive Immunization; Antigens; Antibodies; Complement System: Mechanism of cellular immune response; Mechanism of humoral immune response; Vaccines and Serums; Serology and Research on Serology.

**ECY 216 Pharmacy Registration And Inventory Management** 2+0 3,0

Stock definition, inventory systems, end of period inventory valuation, routinely kept books and records in the pharmacy, the definition of inventory control, importance, benefits, factors that determine the amount of stock in companies, selection technique of stock control, mathematical model that describes the costs, the model against out of stocks, the definition of inventory, inventory and book lists, probabilistic inventory models, problem solving related to stock control.

**ECY 217 Basic Calculation in Pharmacy** 2+0 4,0

Measurement systems, the weight and volume measures used in the metric system, the use of spreadsheets, Standardization and calibration, Concentration expressions, Basic Concepts, Resolution control, Measurement tools, features and use, Dilution, Dilution of Alcohol, Dosage calculations, Statistical calculations of analytical data, Statistics data processing and evaluation, practical calculations.

**ECY 218 Pharmacovigilance** 1+0 2,0

Pharmacovigilance concept, system, importance and frequency of adverse drug reactions, the basic definitions and concepts related to drug safety; public health importance of pharmacovigilance studies, the development of the pharmacovigilance system, the legal regulations relating to

pharmacovigilance activities in the EU, Turkey's pharmacovigilance system; adverse effect of the definition and importance. Pharmacovigilance role of pharmacy technicians. Class will be discussing importance of pharmacovigilance.

**ECY 219 Occupational Health and Safety 2+0 2,0**

Concept and Importance of Occupational Health and Safety; Legal Status of Occupational Health and Safety; Occupational Health and Safety Law, Turkish Labour Law; Physical Risk Factors: Noise, Vibration, Thermal comfort, Pressure; Chemical Risk Factors: Health and safety precautions when working with chemical substances, Work with carcinogens and mutagenic substances; Biological Risk Factors: Bacteria, Fungi, Viruses, Parasites, Cell culture; Accidents at Work: The Concepts of Work Accidents, Danger, Risk, Causes of work accident; Occupational Diseases; The Board of Risk Assessment and Occupational Health and Safety; Emergency Situations; First Aid; Personal Protective Equipment.

**ECY 220 Rational Drug Use 1+0 2,0**

Basic principles of rational drug use, General principles of rational drug use, the role of pharmacy technicians in rational drug use, Prescription errors, Drug use characteristics of the elderly and children, Drug use in pregnant women, Medication errors, Legislation related to rational drug use, Patients' concern on the rational use of medicines, Trust to the source of the drug.

**ECY 221 Practical Drug Information I 3+0 4,0**

Drugs Related General Principles; Local and Systemic Practices; Absorption, Distribution, Metabolism, Elimination; Pharmacodynamics: Impact, potentiation, antagonism, drug effects in the region; Factors changing the effects of drugs, drug interactions; Drug Side Effects and Toxic Effects; Poisoning and Treatment; Chemotherapeutic Drugs; Prescription information Drugs used in cancer therapy.

**ECY 222 Practical Drug Information II 3+0 4,0**

Drugs Used for in the Treatment of Autonomic Nervous System Diseases; Drugs Used for in the Treatment of Central Nervous System Diseases; Drugs Used for in the Treatment of Cardiovascular System Diseases; Drugs Used for in the Treatment of Endocrine System Diseases; Drugs Used for in the Treatment of Diseases of the respiratory and digestive system; Drugs used in cancer therapy.

**ECY 223 Infectious Diseases 2+0 3,0**

Infectious Agents; Pathogenesis; Transmission; Symptoms; Virulence; Epidemiology; Infectious Diseases Diagnosis; Testing; Prevention; Control; Immunization; Immune System and Host Defense; The Hospital (nosocomial) Infections; Transmitted Diseases Via the Surgery and Transplantation; Severe Acute Respiratory Syndrome; Diseases Transmitted by Air; Direct Transmitted Diseases; Sexually Transmitted Diseases; Animal Transmitted Diseases; Insect Transmitted Diseases; Soil Transmitted

Diseases; Water Transmitted Diseases; Diseases Transmitted from Food; Microorganisms as Biological Weapons.

**ECY 224 Drug Forms and Medical Supplies 3+0 3,0**

Basic Reference Books: Medical Formulas; Vademecum; etc.; Label Information and Rules; Prescribing Information; Drug Delivery Systems: Solution; Syrup; Suspension; Emulsion; Semi-Solid products; Rectal and vaginal suppositories; Powder drugs; Solid dosage forms; Sterile drugs; Biotechnological Products; Bioavailability and Bioequivalence Concept of Surgical and Medical Supplies; Laboratory Working Rules; Pharmacy Often the Field Laboratory of Chemical Substances Identification and Properties.

**ECY 226 Drug Application Skills 1+0 2,0**

Drugs: Definition, Use, Pharmaceutical forms; Oral Drug Application Skills; Nasal Drug Application Skills: Drops, Gels, Ointments; Subcutaneous Drug Administration Skills; Drug Application Skills to the Skin; Sublingual Drug Application Skills; Conjunctiva Drug Application Skills: Drops, Ointments, Intra-vitreous; Inhaler Drug Application Skills; Scalp Drug Application Skills; Transdermal Drug Application Skills; Vaginal Drug Application Skills; Rectal Drug Application Skills; Buccal Drug Application Skills; Risk in Medical Practice.

**EDB 122 Children's Literature and Media 2+0 4,0**

General Objectives of Children's Literature: Aims and function; Before Republic and Republic Period Preschool Children's Literature; Children's Literature in Preschool; Properties of the picture in Preschool Children's Books: External and internal structure features in the book, Picture book samples, Types of literature in preschool; Electronic Children's Books: Story Books and Storytelling Method; Guiding to Children and Parents to Use Children's Publications; Children and Media, Media Literacy.

**EST 202 Esthetics and Ethics 2+0 2,0**

Science of Esthetics; Historical Development of Esthetics; Psychological Basics of Esthetic Judgment; Aims of Esthetics: Beautiful and Ugly in Esthetics; Relations between Arts and Esthetics as a Social Phenomenon; Forms of Art and Artists; Relations among Esthetics, Society and Arts: Concept of Business Ethics; Ethical Rules; Code of Ethics for Skincare and Beauty Specialists; Professional Cooperation.

**ETK 103 Professional Ethics 2+0 2,0**

Definition of Aged Care Personnel; Duties and Functions of Aged Care Personnel; What is Profession? What are Elements of a Profession?; What is Professional Ethics?; Ethics, Law, Values, Concepts; Ethics-Values Conflicts, Dilemmas; Institutions Providing Service to Aged People; Human Rights; Rights of Aged People; Characteristics of Aged Care Personnel; Training Period of Aged Care Personnel; Employment Opportunities for Aged Care Personnel.

**ETK 207 Professional Ethics 2+0 3,0**

The Concept of Ethics; General Principles and Applications of Ethics: Comparison of the concepts of morality and ethics; Introduction theories of Ethics; Professional ethics; Basic principles of the profession; Basic Ethical Principles Adopted in the Field of Medicine: Meaning of medical ethics; Medical ethics principles and rules; Respect of private life and confidentiality; Disclosure of information and truth telling; Declarations on medical ethics; Health Workers Rights; Providing Ethics on Business; The physician reports; and ethics.

**HUK 259 Children's Law 2+0 2,0**

Children's Law and Features; Children's Rights at The Constitution of Turkey; Children's Rights on the International Conventions : United Nations Children's Rights Convention; 5395 limited Child Protection Law and Practice: Non-discrimination against children, Child protection against maltreatment, Conservation of children as an accused and convicted , 5237 Turkish Penal Code to the subject perspective; Children's Rights and Verb Licence; The Child's Personality Protection; Children's Legal Identity Properties; Engagement and Marriage of Children; Special Children's Law: Relationship between child and parents, Pedigree, Paternity indication, The Recognition, Paternity case, Adoption, Custody; Protection of Children in need; Education of Children; Protection of Child Employees./1

**İKT 222 Health Economy 2+0 2,0**

Health Services Framework The Role of States in the Health Law and Legal Regulation in Turkey the internationally accepted rights of the patient; Health Organization employee rights and responsibilities; Turkey's Health System's efforts to improve the Turkey Economics and Health Economics in the Context of the International Comparison; General Insurance System and Impact of Health System; Efficiency Analysis in Health System, Economic Policy and Economic Analysis of Exchange Rates and Location of Health Services Sector; Economics.

**İLT 201 Interpersonal Communication 3+0 4,5**

Verbal Communication; Speaking Skills As Dimension of Interpersonal Communication; Listening Capabilities As Dimension of Interpersonal Communication; Non-Verbal Communication; Signs And Meanings; Stress And Stress Management; Group; Group Dynamics; Small Group Characteristics; Persuasion; Speaking And Listening; Time And Time Management; Interpersonal Communication; History of Communication Research.

**İLT 303U Image and Reputation Management in Professional Life 3+0 4,0**

Personal Reputation in Professional Life and Career Management: Professional Life and Having a Profession, Professional Life and Professionalism, Personal Reputation in Professional Life, Career Management in Professional Life, Skills Required in Professional Life; Non-verbal Communication: Communication and Components of Communication, Non-verbal Communication, Culture and Non-verbal Communication; Verbal Communication and

Rhetoric: Rhetoric in Verbal Communication, Types of Verbal Communication, Relationship between Verbal Communication and Rhetoric in Professional Life, Negotiation process and Cultural Differences; Power of Persuasion in Professional Life: Concept of Persuasion, Process of Persuasion, Tactics Used in Persuasive Communication, Personal Traits and Persuasion, Leadership and Persuasion, Organizational Communication and Persuasion; Reputation Management and Social Skills: Personal Reputation, Effect of Social and Political Skills on Personal Reputation, Impression Management; Social Norms and Protocol: Social behavior and Protocol Norms, Job Interview, Other Rules and Norms in Professional Life, International Social Norms; Dress Codes in Professional Life: Image in Professional Life, Business Attires; Professional Ethics: Concept of Ethics, Business Ethics, Historical and Social Sources of Business Ethics, Reflections of Business Ethics on Professional Life.

**İNG 187 English I 3+0 3,0**

Using Personal Pronouns and Possessive Adjectives; Using to be in Present Tense; Using Singular and Plural Nouns; Using Basic Language Related to Food and Drink; Using "There is-there are" in sentences; Using "have got"; Asking "yes-no" Questions and Giving Short Answers to Them; Talking about Daily and Weekly Routines; Talking about Likes and Dislikes; Talking about Sports and Hobbies; Talking about Abilities by Using "can", "can't"; Using Adjectives that Describe People; Talking about Appearance, Personality and Feelings of People; Talking about Clothes and Colours; Talking about Shopping and Prices; Using Present Continuous Tense.

**İNG 188 English II 3+0 3,0**

Using Simple Present Tense; Comparing Simple Present and Present Continuous Tenses; Using Prepositions of Time and Place; Giving Directions, Making Reservations; Using "to be" in Past Tense; Using Regular and Irregular Verbs in Simple Past Tense; Using Comparative and Superlative Form of Adjectives; Using Modals to Give Advice; Suggestions and Obligations; Using Future Tense: Making Sentences Using "going to" and "will"; Using If Clauses Type 0 and 1.

**İŞL 109 Introduction to Business 2+0 2,0**

The Concept and History of Business; Relationship Between Business Science and Other Sciences; Environment in the Business; Goals of Business, Classification for Different Kind of Criterion; Law Forms; Union of Businesses; Functional Approaches in Businesses: Marketing Function, Product Function, Financial Management Function, Production Function; General Information about Cost Concepts: Variable and Standing Costs, Unit Costs and Total Costs, Job Order Cost System, Process Cost Systems, Case Studies.

**İŞL 205U Business Administration 3+0 5,0**

Management and the Manager: Management and the manager, Professional manager and entrepreneur, Business management, Roles of managers; Historical Development of

Management: Classical management theory, Neoclassical management theory; Modern Management Theories: System approach, Contingency approach; Planning: Mission, Aims, Planning problems and solutions; Organization: Organization, Organization principles, Organization structures; Organizational Change: Leadership, Motivation, Communication; Coordination and Control: Function of coordination, Techniques of coordination, Organizational culture, Indicators of balanced achievement; Contemporary Management Techniques: Information management, Conflict strategies, Brand management.

**İŞL 209 Business Management 2+0 2,0**

Business and Basic Concepts, Aims and Relationship with Environment of Management: Basic concepts, Business' aims, Importance in economical structure, Difference between manager and entrepreneur; Classification of Businesses: Dimension, Property, Legal structure etc.; Establishment Studies, Dimension and Capacity: Foundation stages, Location, Dimension definition, Capacity; Functions of Business: Management, Organization, Control, Planning; Organization Operation Process: Leadership and management, Strategical management, Change, Groups, Motivation.

**KİM 114 Biochemistry 2+0 3,0**

Concept of Viability, and Metabolism; Protein Chemistry: Enzymes and Coenzymes; Vitamins; Carbohydrate Chemistry and Metabolism; Oxidative Phosphorylation; Lipid Chemistry and Metabolism; Protein and Amino Acid Metabolism; Nucleotides; Hormones; Acid-Base Balance; Minerals; Carbohydrates; Qualitative and Quantitative Determination of Carbohydrates, Lipids and Proteins; Blood and Urine Analysis; Various Enzyme Tests.

**KİM 116 Basic Chemistry 2+1 4,0**

Basic Concepts; Substance, Element, Compound, Mixture, Atom, Molecule, Mole, Measurement units; Concentration of Solutions: Percentage Concentration, Molarity, Molality, Normality; Concepts Related to Resolution: Factors affecting the resolution of substances; Chemical Kinetics; Factors Affecting the Reaction Rate: Nature of substances, Concentration, Temperature, Catalyst; Chemical Equilibrium: Direction of reaction, Equilibrium constants, Factors affecting equilibrium; Acids and Bases; Concepts of Molecular Relationship and Element: Gravity forces, Chemical bonds; Aliphatic and Aromatic Hydrocarbons.

**KİM 120 Fundamentals of Chemistry 2+0 4,0**

Basic Concepts; Substance, Element, Compound, Mixture, Atom, Molecule, Mole, Measurement units; Concentration of Solutions; Concepts Related to Resolution: Factors affecting the resolution of substances; Chemical Kinetics; Factors Affecting the Reaction Rate: Nature of substances, Concentration, Temperature, Catalyst; Chemical Equilibrium: Direction of reaction, Equilibrium constants, Factors affecting equilibrium; Acids and Bases; Chemical bonds; Aliphatic and Aromatic Hydrocarbons.

**KİM 130 Fundamentals of Biochemistry 2+0 4,0**

Concept of Viability and Metabolism; Protein Chemistry: Enzymes and Coenzymes; Vitamins; Carbohydrate Chemistry and Metabolism; Oxidative Phosphorylation; Lipid Chemistry and Metabolism; Protein and Amino Acid Metabolism; Nucleotides; Hormones; Acid-Base Balance; Minerals; Carbohydrates; Qualitative and Quantitative Determination of Carbohydrates, Lipids and Proteins; Blood and Urine Analysis; Various Enzyme Tests.

**KİM 137 Fundamental of Chemistry 2+0 4,0**

Structure of Material, Element and Compounds, Identification of Materials, Identification methods of mixtures, Identification methods of compounds, Measurement, Atomic theory, Atomic Structure, Periodic Table, Intermolecular attraction force, Chemical bonds, chemical kinetics, Solutions, Concentration of solutions, Ideal Solutions, Solubility of solid, liquid and gases in water, Acids-Bases; General concepts related to acids and bases, Identification parameters of acids and bases, Aliphatic and aromatic hydrocarbons.

**KİM 263 Basic Biochemistry 2+0 5,0**

Definition and Importance of Biochemistry; General Properties of Carbohydrates; Classification and Analysis of Carbohydrates; General Properties of Lipids; Classification and Analysis of Lipids; Structure of Aminoacids; General Properties and Analysis of Proteins; Structure of Vitamins; Nomenclature and Classification of Enzymes; Minerals and Their Functions; General Properties of Hormones.

**KİM 267 Clinical Biochemistry and Applications 2+2 5,0**

Introduction to clinical biochemistry, Enzymes and clinical importance, Carbohydrates and carbohydrate metabolism, Lipids, Lipid and lipoprotein metabolism, Mechanism of effect hormones, Hemoglobin, porphyrins, iron and bilirubin metabolism, Amino acid metabolism disorders, Tumor markers, Clinical biochemistry laboratory samples, Clinical the methods used in biochemistry, Molecular methods used in clinical biochemistry laboratory, Affecting factors of laboratory analysis, Blood glucose measurement, Serum protein levels measurement, Determination of blood lipid levels, Urine analysis.

**KOZ 204 Cosmetic Products 2+0 2,0**

Definition of Cosmetic Products; Cosmetics Act; Classification of Cosmetics; Cosmetic Delivery Systems: Cream; Emulsion; Suspension; Aerosol; Color Cosmetics; Baby Cosmetics; Sun Protection Cosmetics; Foot And Nail Care Cosmetics; New Cosmetic Delivery Systems; Labeling and Packaging; Preservation of Cosmetic Products; Side Effects of Cosmetic Products.

**KOZ 205 Skin Care with Natural Products 1+1 3,0**

Medical Plants; Medical Plant Oils; Preparing Cleaning Milk with Natural Products: Cleaning Milk Formulas, Application; Tonic Preparation with Natural Products: Tonic formulations, Application; Peeler Product Preparation with Natural Products: Peeler product formulations, Application;

Mask Preparation with Natural Products: Mask formulas, Application; Natural Products Used For Problematic Binds: Acneous binds, Stained bindings; Natural Products Used For Sensitive Skin.

**KOZ 206 Cosmetic Chemistry and Applications 1+1 3,0**  
Organic Compounds in Cosmetics; Cosmetics as Mixtures and Individual Care Products; Surface Activity; Emulsions and Cleaning; Quantitative Analysis Techniques for Cosmetic Products; Preparation of Shampoo; Preparation of Hair Cream; Preparation of Hand and Face Cream; Preparation of Cologne; Preparation of Bath and Shower Products; Preparation of Disinfectant; Determination of Heavy Metals in Cosmetic Products; Preparation of Detergent and Cleaning Products; Analysis of Cosmetic Products.

**KÜL 197 Life in Campus 0+2 4,0**  
Membership to Student Clubs; Taking part in the administrative bodies of Student Clubs; Participation in the organization of activities of the student clubs; Participation in activities of Student Clubs.

**KÜL 199 Cultural Activities 0+2 2,0**  
Participating Actively or as a Spectator in Sports Activities; Participating in Activities Arranged by the Counseling Center; Participating in Workshops in Art; Education on Museums; Participating in Art Trips; Participating in Cultural Trips; Participating in and Taking Duty in activities such as Cinema, theatre, scientific Meeting etc.; Taking duty in Clubs; Being a Student Representative and Participating in Environmental Activities.

**MAT 126 Mathematics 2+0 2,0**  
Numbers: Arithmetic operations, Using a calculator, Power and root account; Algebra: Algebraic operations, Using formulas, Simplification procedures; Equations and Inequalities: Linear and quadratic functions; Logarithms: Compound interest, Economic growth, Growth calculations related to population increase; Systems of Linear Equations and Matrices: The slope of a line, Solving systems of linear equations, Matrices and Determinants; Derivatives: Using derivatives in the profession; Integral: Using integral in the profession.

**MAT 134 Vocational Mathematics 3+1 4,0**  
Concepts of Percentage and Per mille; Concepts of Ratio and Proportion; Cost and Sales Calculations: Calculating the profit based on the rate of cost value, Calculating the loss, Calculating the profit based on the rate of sales price, , Calculating the total amount of loss; Calculation of Cost and Sales Prices; Interest Calculations: Simple and compound interest calculations; Discount Calculations: Simple and compound discount calculations; Concepts of Mixing and Composition; Calculations of Proportional Division.

**MÜZ 155 Turkish Folk Music 2+0 2,0**  
Folk songs from different Regions of Turkey are Taught; Aegean Region Zeybek Folk Songs: Eklemedir koca konak, Ah bir ateş ver, Çökertme, Kütahya'nın pınarları,

Çemberinde gül oya; Kars Region Azerbaijani Folk Songs: Bu gala daşlı gala, Yollarına baka baka, Dağlar gızı Reyhan, Ayrılık, Dut ağacı boyunca; Central Anatolian Region Folk Songs: Seherde bir bağa girdim, Uzun ince bir yoldayım, Güzelliğin on para etmez, Mihriban ve Acem kızı; Southeastern Anatolian Region; Urfa and Diyarbakır Folk Songs: Allı turnam, Urfanın etrafı, Mardin kapısından atlayamadım, Fırat türküsü, Evlerinin önü kuyu; Blacksea Region; Trabzon, Rize, Artvin Folk Songs: Maçka yolları taşlı, Ben giderim Batuma, Dere geliyor dere.

**MÜZ 157 Traditional Turkish Art Music 2+0 2,0**  
Description of Traditional Art Music: Basic concepts, Characteristics, Types, Notes, Instruments; The Mode System of Traditional Turkish Art Music; The Rhythmic Pattern of Traditional Turkish Art Music; Samples from Different Modes; Samples from Different Rhythmic Patterns.

**PSİ 214 Geropsychiatry 2+0 3,0**  
Mental Health; Mental Disorder; Bio-Psycho-Social Characteristics of Human and Psychodynamic Foundations of Human Behavior; Ego Defense Mechanisms; Psychological Developmental Stages; Psychological Changes in Aging; Personality Disorders; Culture and Psychiatry; General Symptoms of Common Mental Disorders; Supportive Communication; Schizophrenia and Other Psychotic Disorders; Individuals with Affective Disorders; Somatoform Disorders Related to Neurotic Stress; Psychiatry; Ethical and Legal Issues in Psychiatry.

**PSİ 235 Geropsychology 2+0 3,0**  
Basic Concepts and Approaches to Geropsychology; Physical Changes in Aging; Neurological Disorders and Treatment in Aging; Cognitive Changes in Aging; Socio-Emotional Changes in Aging; Psychological Functioning and Aging; Preventive Studies in Aging; Cultural Differences and Aging in the 21. Century; Death, Dying, Mourning.

**SAĞ 124 Public Health 2+0 2,0**  
Public Health Protection and Levels; Health in the Early Diagnosis; Treatment and Rehabilitation; For Public Health Education: Widespread Health Education; Formal Health Education; Health Education Factors: Factors Affecting Education; Training Methods; Health Education Issues: Sanitation hygiene, Nutrition, Recreation, Dependant, Rreproductive health, Family planning, Immunization and vaccines, Infectious diseases, Aging, Accidents, Health Administration and Legislation, Animal Transmitted Diseases; Insects Transmitted Diseases; Soil Transmitted Diseases; Waters Transmitted Diseases; Diseases transmitted from food.

**SAĞ 203 Basic Public Health 2+0 3,0**  
Levels of Public Health Protection ; Early Diagnosis, Treatment and Rehabilitation; Health Education for the Public; Non-formal Health Education; Formal Health Education; Factors Affecting Health Education; Education Methods; Reproductive Health; Family Planning;

Communicable Diseases; Aging; Accidents; Health Administration and Legislation.

**SAG 205 First Aid** **2+0 3,0**

Aims of First Aid; Precautions to be Taken by First Aid Providers; Human Body; First Aid Supplies; Drowning and Supplying Respiration; Stopping Bleeding and Supplying Blood Circulation: External and internal bleeding symptoms and first aid, First aid and recognition of loss of consciousness, Causes of shock and recognition of shock due to bleeding and first aid, Heart massage and artificial respiration; Emergency and First Aid in Case of Injuries, Burns, Trauma and Other Complications Due to Accidents and Poisoning; Threats to Human Health; Skills and Knowledge That Child Development Specialists Need to Intervene in Case of Emergency.

**SAG 209 Maternal and Child Health** **2+0 3,0**

Definition of Maternal-Child Health; Status of Children's Health in Our Country and in the World; Pregnancy: Child development in the womb, Effects of illness and accidents in pregnancy on child development; 0-6 Age Children Physical Development (Dental, Height, Weight) of Children Aged 0-6 Years; Diseases (e.g. Diarrhea and respiratory Infections, Immunization and Exanthematous Diseases, Parasitic Infections, etc.) Children Aged 0-6 Years and Protection Methods; Vaccines; Women's Health Problems by Age; Family Planning.

**SAG 220 Public Health** **2+0 5,0**

Levels of Public Health Protection; Early Diagnosis, Treatment and Rehabilitation; Health Education for the Public; Non-formal Health Education; Formal Health Education; Factors Affecting Health Education; Education Methods: Excursion, Lecture, Conference, Panel, Group Discussion; Subjects of Public Health: Hygiene, Sanitation, Nutrition, Reproductive Health, Family planning, Communicable diseases, Aging, Accidents; Health Administration and Legislation.

**SAG 222 First Aid** **2+1 3,0**

Social Importance of First Aid; Aims of First Aid; Precautions to be Taken by First Aid Providers; Human Body; First Aid Materials; Strangulations and Supplying Respiration; Stopping Bleedings and Supplying Blood Circulation: External and internal bleeding signs and first aid, First aid and recognition of loss of consciousness, Causes of shock and recognition of shock due to bleeding and first aid; Degrees of Coma and First Aid; First Aid in Heart Failure; Applying Cardiopulmonary Resuscitation (CPR) and Artificial Respiration Together; Types of Injury and First Aid; Burn and Boils; Fractures; Dislocations and Spraining; Poisonings; Freezing; Hot and Electric Shocks.

**SEK 222 Work Place Psychology** **2+0 3,0**

Use of Psychology at Work; Protecting Employees? Mental Health; Creating a Satisfactory Work Environment; Methods of Increasing Performance; Motivation; Increasing Motivation; Work Satisfaction and Lack of Satisfaction; Work Stress; Worker Burn out; Avoiding Monotony; Feeling

of Alienation; Effective Communication and Developing Communication Channels; Work Place Environment; Work Place Accidents; Creating Effective Methods of Dealing with Stress and other Psychological Factors.

**SEK 230 Speed Reading Techniques and Shorthand** **1+1 3,0**

Shorthand; Ability of Use Shorthand in the Office; Speed Reading and Techniques of Developing faster Reading Skills for the Office; Developing Memory Skills and Recall Techniques; Skimming and Scanning in Reading.

**SGH 104 Microbiology and Hygiene** **2+0 2,0**

Introduction to Microbiology; Groups of Microorganisms; Infectious Diseases, Transmission Routes, Prevention Methods; Infectious Diseases on Hair and Skin; Methods of Sterilization and Disinfection; Sterilization Equipment; Practice in Hairdressing and Beauty Centers; Use of Disinfectants; Hygiene: Personal hygiene and its significance, Hair and body Hygiene, Salon hygiene, Cosmetics hygiene.

**SGH 107 Makeup Basics** **1+2 3,0**

Makeup: History, Colors, the tools and equipment used in makeup, Issues to be considered during makeup application, States can not be made of makeup application, Measurement and rate information, the light shade and camouflage makeup, Lighting techniques based on face shape, Bride, Day, Night, Sage and objective makeup, Podium, Show up for, the methods used for permanent makeup is.

**SGH 108 Hair and Skin Diseases** **2+0 2,0**

Structure of Hair and Scalp; Skin and Extensions; Non-Communicable Diseases: Dandruff, Excessive lubrication of the hair, Psoriasis, Baldness, Male pattern baldness, Sebaceous cysts, Broken hair, Damaged hair; Infectious Diseases on Hair and Scalp: Head louse, Fungus, Impetigo, Folliculitis; Hand and Foot Nail Diseases; Skin Health After Epilation and Depilation; Cosmetic Allergies.

**SGH 109 Skin Treatments** **1+3 3,0**

The structure of the skin: Types, skin analysis, the tools and cosmetic products used in skin care, Basic skin care application, Skin care can not be done cases, Skin care treatments for wrinkle treatment, Skin care treatments for the treatment of blemishes, AHA treatments, Anti-aging skin care, Acne treatment, mask application, Facial massages; The points to be considered after the skin care applications.

**SGH 112 Depilation** **1+1 2,0**

Depilation: Definition, Purpose and History, the hair structure; Bristle types, Makes the output direction, Depilatory varieties; Rules need to be considered before making depilation, Depilation types, the application of depilation kind, Issues to be considered during the depilation process, Depilation process after the awe that should be considered are, Depilation care of the place made.

**SGH 114 Plastic Makeup 1+2 3,0**

Plastic make-up; Importance, History, Types, Light and color information, The tools and equipment used in plastic makeup, remove mold with plaster and removed the plaster on the wound incision and process design, Mold casting, Taking the tooth pouring mold, Separating the design out of the female mold, Taking shape from the mold and adhered to the skin of the material, Coloring, Different on Face personalities to be created.

**SGH 115 Hairdressing and Care I 2+2 4,0**

Temporary hair styling methods: Definition, Importance, Types, History; Issues that should be considered before making the hair a temporary way: The characteristics of the products we use in hair temporarily forming processes, Usage patterns: Application to the type of hair dryer, applications Mizanpl varieties, Tong construction, Sandwich construction, Applications Knob type, Akros construction, applications Formal kind, Vigo construction, Rasta application, Vac construction.

**SGH 116 Hairdressing and Care II 2+2 4,0**

Permanent hair styling techniques: Definition, Importance and History; Perm application to be considered before the spots, Perm that will be used in practice as tools, Selection and use characteristics of cosmetic products, Perm savage techniques and applications will be considered in the perm application point, the process steps of the perm application, Suitable to do the techniques of perm process, Points to be considered before the Defra practice; Defra tools will be used in the application, selection and properties of cosmetic products will be considered in the application defra points, Made according to the technical process of Defra.

**SGH 118 Massage 1+2 3,0**

Massage Description of History and Types: Case inconvenient to do massage, Massage which will be held media properties, Masseur and qualifications should have a masseuse, the techniques used in massage, Massage types, Basic techniques, aesthetic massages principles, Massage manipulations; Scalp massage techniques, Facial and décolleté massage technique, foot massage technique, leg massage technique, Hip massage technique, Back massage technique, Abdominal massage techniques, Arm massage technique, Hand massage technique, Breast massage technique, Neck massage technique, Whole body massage technique.

**SGH 120 Hand-Foot and Nail Care 1+2 2,0**

Nail structure, Formation types, Nail diseases, The teaching devices used in Nail Manicure application, Manicure cases can not be done, Issues to be considered after the manicure, Pedicure application, Pedicure cases can not be done, Issues to be considered after the Peiker Hand and foot massage, Cosmetic products used in the hand and foot care, Nail Polish version.

**SGH 205 Hair and Makeup Design on the Computer 1+1 3,0**

Basic Information and Applications about Hair and Makeup Packet Program: Use of Packet Program (Cosmopolitan Makeover, Changes Studio 2 Makeover, Sugar Virtual Makeover).

**SGH 216 Installing Hair and Beard Construction Applications 2+1 3,0**

Artificial hair: Definition, History, Importance, use the principles and construction stages, Wigs made with crochet, wig care, Washing, Drying, Shaping and storage, Detachable hair types; Snap, Wigs, Source, Hhairpiece, Mace, Cardamom, muscle- lashes, Zülüf, Knitting, used by men; Wigs, Tupe, Bishi, Beard - Mustache, Favorite, use Detachable hair causes, Issues to be considered in Installing hair, General information about Rasta, Cautions be, Detachable hair and supply; What should be taken into consideration when making the hair supply, Resource types and applications, the points to be considered in the welding process.

**SGH 219 Body Treatments I 1+2 3,0**

Body Care: Definition, Importance, body types and strains that occur in the body, Ideal body size, body care situations can not be done, the tools and equipment are used in body care, Cellulite; Definition, Characteristics, Types, Cellulite body care, Cellulite treatments, Body treatments with sagging, Stained body treatments, Body treatments, cracks, Regional body care.

**SGH 220 Body Treatments II 1+2 3,0**

Body Care: Body peeling, Mesotherapy and body care, Purpose and stages, Karboksiterapi body care, purpose and stages, Lipolysis and objective body treatments with lasers and stages, Body treatments, and stage with electric current systems, Body care with electric lifting and iontophoresis objectives and stages, Body treatments, Oxygen and ozone.

**SGH 221 Special Massage Techniques 1+2 4,0**

Special massage techniques: Definition, Importance, Types, Massage Types, Issues to be considered when applying special massage techniques, Used cars in supplies and equipment, Swedish Massage practice, Thai massages, Deep tissue massage to aromatherapy massages, Sports massages, Cellulite massage application, Application Stone Massage, Shiatsu massages, the points to be considered after massage treatment.

**SGH 222 Nail Decoration Techniques 2+1 4,0**

Nail decoration: Definition, Importance and types, Used in nail decoration materials and equipment, Decoration method with nails polish, Decorate method with paste nails, Trimming method to remove the nails, Marbled making method on nails, Nail decorations need to be considered in the technical points, the quotes made Decorations issues to be considered in the use of prosthetic nail methods; Type and application.

**SGH 223 Permanent Makeup 1+2 4,0**

Permanent makeup: Definition, Importance and History, the tools being used in permanent makeup application, Used paint types and properties, Used needle types and features, Face, Eyebrows, Lips and eyelashes varieties, Eyebrow shaping, Eyelash adding and eyelash perming; Permanent makeup procedures; eyebrow, Lip and eye Circle permanent makeup applications, Verification of customer's permanent makeup, explaining the point to O customer care during use.

**SGH 224 Seminar 2+0 2,0**

Hair and Beauty Services innovations occur in the area: Evaluation of those operations under the program, the Turkey and the world situation in the area when prone to the evaluation process and working potential of working conditions and benefits, Related work is bias, Informative presentations and feedback gain, Investigated the sector assessment of the students.

**SGH 225 Epilation 1+2 4,0**

Epilation: Definition, Types, and History, Epilation can not be states, Needle epilation, Laser epilation, Laser Hair Removal Gel for hair removal, light bulbs hair removal practices, issues that should be considered before making hair removal, Matters to be considered during the removal process, Complications may occur during hair removal, Hair removal the maintenance of the structures.

**SGH 226 Reflexology 1+2 5,0**

Reflexology: What is it?, How does it work?, The application areas of reflexology, Conditions should be used with caution in Reflexology, Situations where feasible, Reflexology, Reflexology adults, Reflexology in children, Patients in reflexology, Foot anatomy, to determine the place of the reflex , Head and neck reflexes, Chest of reflexes, Spinal reflexes, Pelvic area reflexes, Related to reproductive organs reflex., Reflex related to the lymph system, Reflexology techniques.

**SGH 227 Hair Coloring I 1+3 4,0**

Hair coloring: Definition, Importance, History and Types, Natural hair coloring technique application, Dyed hair coloring technique, Practice, Long hair dye application, Short hair dye application, Bottom painting app, Painting with dark paint tones, Painting the Middle hues painting with light colors and shades, Problems that may occur during the painting process, to acquire the competence to solve the resulting problems.

**SGH 229 Hair Cut I 1+2 3,0**

Haircut: Definition, Types, Characteristics and properties of the tools used and cosmetics haircut, should be considered in hair cutting spots, haircut will not work situations, Oval haircut application, Plain haircut application, Floor haircut practice, Graduation haircut application, Symmetrical haircut applications, Asymmetrical haircut application, the rules geek attention after the application.

**SGH 230 Seasonal Hair and Makeup Design 1+2 5,0**

Seasonal hair and makeup applications: 1920s hair and makeup applications, 1930 s hair and make-up applications, the 1940's hair and makeup applications, 1950s hair and makeup applications, 1960s hair and makeup applications, 1970s hair and make-up applications, 1980 s hair and makeup applications, 1990 in hair and makeup applications, hair and make-up applications in the 2000s .

**SGH 232 Hair Coloring II 1+3 4,0**

Dekolorasyo process: Description of the importance and type, the issues to be considered during the Dekolorasyo the application to be considered when the Dekolorasyo application points, Lessened the process of application, the pickling process, Mondansaj process applications, Hair color, deletions, Highlights, Rapier and balyaj application, Problems that may occur during the painting process, to acquire the competence to solve the resulting problems.

**SGH 234 Hair Cut II 1+2 3,0**

Hair Cutting Technically: Application of Female hair cutting techniques, Male applications haircut techniques, applications Children haircut techniques, haircut with razor blade cutter, Thinning shears with a haircut, haircut with electric hair clipper, Issues to be considered during the haircut, problems may occur during the cutting process, communication with the customer during the cutting process.

**SGH 236 Stage Makeup and Lens 1+2 5,0**

The teaching devices and equipment used in the scene and objetif makeup, Definition and Characteristics of Cinematographic Television- Photo Makeup: Cinema - Television -Photo Makeup Whilst Cautions are used in the scene and Lens Makeup Appliances and Features, Stage - Fantezi- Carnival and Special Effects Makeup, the rules need to be considered during makeup application.

**SHZ 106 Introduction to Social Work 2+0 3,0**

Introduction to Social Work: Definition, Basic concepts; Historical Development of Social Work in Turkey and in the World; Social Work Methods and Techniques: Theory, Working with individuals, Working with groups, Working with the community, Professional interviews, Social investigation report; Specifications and Qualifications of Social Work as a Job: Purpose, Value, Function, Subject, Philosophy; Main Fields of Social Work: Social work for families, children and schools, Youth, Disability, Poverty and social welfare, Immigration and urbanization, Aging and social services, Medical social services, Crime and social services.

**SNT 155 History of Art 2+0 2,0**

History of Civilization and Evolution of Art: Prehistory to Present; Concepts and Terminology in Art with Samples; Interrelation among Art-Religion and Society; Effects of Religion on Artistic Development; Reflections and Interpretations of Judaism, Christianity and Islam on Art; Renaissance: Emergence, Effects, Artists, Works of Art; Architecture and Plastic Arts; Art in the 19th and 20th

Centuries: Relevance of the main historical events of the period.

**SOS 113U Behavioral Sciences I 3+0 4,0**

Introduction to Sociology and Methodology: What is sociology?, Scientific methods and stages; Historical Development of Sociology and Theoretical Approaches to Sociology; Culture and Cultural Transformation; What is culture?, Ethnocentrism and cultural relativism; Family and Social Groups: Family structures and types, Social groups and group types; Globalization and the Institution of Economics; Social Inequality and Stratification; Urbanization and Population in the Process of Social Transformation; Crime and Aberrant Behaviors.

**SOS 155 Folkdance 2+0 2,0**

Dance in Primitive Cultures; Dance in Earlier Civilizations; Dance in the Middle Age and Renaissance; Dance in the 18th and 19th Centuries; Dances of the 20th Century; Ballet; Turkish Dances; Emergence of Folkdance; Anatolian Folkdance: Classification, Accompanying instruments; Methods and Techniques of Collecting Folkdance; Problems in Collecting Folkdance; Teaching of Folkdance; Adapting Folkdance for Stage: Stage, Stage aesthetics and Choreography, Orientation and choreography.

**SOS 220 Health Sociology 2+0 2,0**

Aims of Health Sociology; Place of Health Sociology in Public Health; Health and Social Environment: Effects of Social Environment on Health, Relation between Preventive Medicine and Health Sociology; Biological Environment on Appearing of Diseases; Factors of Physical Environment and Social Environment; Prevention of Environmental Damages; Population and Health: Social Factors affecting Population Change; Socialization and Its aims: Social Change, Population Medicine in Rural Areas, Social Differentiation and Stratification, Effects of Social Movements on Health.

**TAR 165 Atatürk's Principles and History of Turkish Revolution I 2+0 2,0**

Reform efforts of Ottoman State, General glance to the stagnation period, Reform searching in Turkey, Tanzimat Ferman and its bringing, The Era of Constitutional Monarchy in Turkey, Policy making during the era of first Constitutional Monarchy, Europe and Turkey, 1838-1914, Europe from imperialism to World War I, Turkey from Mudros to Lausanne, Carrying out of Eastern Question, Turkish Grand National Assembly and Political construction 1920-1923, Economic developments from Ottomans to Republic, The Proclamation of New Turkish State, from Lausanne to Republic.

**TAR 166 Atatürk's Principles and History of Turkish Revolution II 2+0 2,0**

The Restructuring Period; The Emergence of the fundamental policies in the Republic of Turkey (1923-1938 Period); Atatürk's Principles, and Studies on Language, History and Culture in the period of Atatürk; Turkish Foreign Policy and Application Principles in the period of Atatürk; Economic Developments from 1938 to 2002; 1938-2002

Period in Turkish Foreign Policy; Turkey after Atatürk's period; Social, Cultural and Artistic Changes and Developments from 1938 to Present.

**THU 201 Community Services 0+2 2,0**

The course aims to integrate the students with the community and enable them to utilize the knowledge they have accumulated in their courses. The students participate in different community projects such as helping young students at their study periods or after school study sessions, aiding the elderly in nursing homes, helping disabled individuals with various tasks, helping Social Services and aiding children with their education etc. The students also try to work in projects which raise environmental awareness.

**THU 203 Community Services 0+2 3,0**

Various Community Projects: Helping young students during their study periods or after school study sessions, Aiding the elderly in nursing homes, helping disabled individuals with various tasks, helping social services and aiding children with their education etc., take part in the projects which raise environmental awareness, Integrating with the community and enabling use of knowledge accumulated in the courses.

**TLT 101 Medical Biology and Genetics 3+0 4,0**

Biomolecules; Cell Structure and Organization of the Cell Structure; Organelles and Their Functions; Cell Physiology; Energy Metabolism; ATP Synthesis Methods; Mendel's Principles of Genetics; Cell Division and Its Stages; Nature of Genetic Material; DNA and RNA Structure; DNA Synthesis; Protein Synthesis Mechanism; Genetic Control Mechanisms; Mutation Paths; Reproductive Organs; Reproductive Biology.

**TLT 103 Laboratory Safety 1+0 2,0**

To identify the laboratory hazards, Take personal safety precautions in the laboratory, the laboratory signs of danger, the use of designed devices and laboratory clothing to prevent laboratory danger as a result of spills of chemicals to prevent damage, take precautions against chemicals, radioactive or infectious material hazard, To do extraordinary plans, Storage of chemicals, the use of hazardous chemicals, to prepare a checklist against chemical agents, Transfer of chemicals, Chemical, physical and biological control agents.

**TLT 104 Clinical Microbiology Applications 1+2 4,0**

Safety in Microbiology Laboratories; Apparatus and Equipment Used in Microbiology Laboratories; Quality Control and Standards in Microbiology Laboratories; Diagnostic Methods Used in Clinical Microbiology; Transport of Samples to the Laboratory; Microscopy Techniques; Cultural Processes; Automation Systems; Immunological Methods; Molecular Tests; Antibioqram Tests: Evaluation of Test Results.

**TLT 106 Basic Laboratory Applications I 1+2 4,0**

Patient registration, the removal of the patient report, Lay out of the work place, Kit, chemicals, reagents, control of

consumables, Working principles of laboratory devices, Sample collection rules, Sample collection and handling, Preanalytical errors, CBC methods, Urine analysis, Protein assays, Urine sediment analysis (microscopy), Biochemistry autoanalyzer studies, Turbidimetric method, Nephelometric measurements, HPLC methods, Chemiluminescence methods.

**TLT 202 Medical Waste 2+0 3,0**

What is Medical Waste?; Medical Waste Producer's Obligations; Separate Collection and moved in at Source of Medical Waste; Unit Internal Medical Waste Management Plan; Municipal Duties of Medical Waste Temporary Storage and Temporary Waste Depot; Containers as using Temporary Waste Storage; Collection and Transport of Small Amount of the produced Medical Waste; Hazardous Waste Arising in Health Facilities and Waste Minimization; Personnel Training Related to Medical Waste, Medical Waste Disposal, Waste Management Problems and Suggestions for Solution.

**TLT 203 Hematology 2+0 3,0**

Introduction to Hematology, Blood Composition and Functions; Blood Count Methods; Taking Blood Sample; Anticoagulants and Bone Marrow Aspiration; Developments and Count of Erythrocytes, Reticulocytes, Hemoglobin Determination; Structure of Hemoglobin, Differences in Hemoglobin; Hematocrit and Erythrocyte Sedimentation Rate; Serological experiments; The Abnormalities in Erythrocyte Construction and Demolition; Erythrocyte Indexes; Developments, Count and Differential Count of White Blood Cells, Leukocyte Abnormalities; Leukocyte and Virus Diseases; Leucocytes and Malignant Diseases; Blood Agglutination, Blood Groups and Techniques; Hemorrhagic Diseases connected Various Reasons.

**TLT 213 Experimental Animals 2+0 3,0**

Mouse, Rat, Guinea Pig and Rabbit Biology; Selection of Experimental Animals; Experiment Areas and Life Cages; Animal Nutrition; Production and Care of Experimental Animals; Dissection Instruments and Cleaning; Cleaning Animal Wastes and Health Rules to Consider; Jugular Vein, Tail Vein and Blood Collection from the Heart; Death in Experimental Animals.

**TLT 214 Pathology 2+0 5,0**

Definition of and General Information on Pathology; Pathology Laboratories; Hospital; Cell Injury; Necrosis and Its Types; Cellular Adaptation I; Cellular Adaptation II; Liquid Equilibrium Disorders and Edema; Congestion, Hyperemia and Bleeding; Thrombosis, Embolism, Infarction and Shock; Metabolic Disorders I; Metabolic Disorders II; Inflammation: Acute and chronic inflammation, Granulomatosis Inflammation; Wound Healing; General Inflammation of the Immune System; Tumors, Tumor Etiopathogenesis, Special Tumors, Pathology Laboratory; Pathology of Infectious Diseases.

**TLT 215 Parasitology 2+0 4,0**

Common Life; Parasites; Concepts of Host and Vector; Parasitism: Impact of parasites on the host, Impact of the host on parasites; Sources of Parasite; Result of Infection; Epidemiology of Parasitosis; Symptoms of Parasitosis; Diagnosis of Parasitosis: Active diagnosis with the parasite, Direct diagnosis, Indirect diagnosis; Treatment of Parasitosis; Fight Against Parasitosis; Important Parasite Groups in Human: Protozoa, Helminthes, Arthropods.

**TLT 216 Radiation Biology and Nuclear Medicine 2+0 3,0**

Definition of Nuclear Medicine; Concept of Atomic and Nuclear Physics and Radiation; Types of Radiation and Drug Interactions; Radioactive Agents and Pharmaceuticals used in Nuclear Medicine; Radioactivity Detection Systems; Radiation Protection: biological effects of radiation, Classification of radiation sources, Rules of protection from radiation; Radiation Dosimeter; Radioactive Waste Management; Area and Staff Dosimeter.

**TLT 217 Genetic Analysis 2+0 3,0**

Collection and Storage of DNA Evidence; Contamination; Genetic Basis of Diversity: DNA Typing; Series Polymorphism; Importance of DNA Analysis in Forensic Cases; DNA Isolation; Qualitative and Quantitative DNA Analysis; DNA Sequence Analysis; PCR-RFLP (polymerase chain reaction - restriction fragment length polymorphism) as a Screening Technique; Bacteria Cloning System; Definition and Organization of Genome; Genomes of Various Organisms; Genome Gene Search and Screening Methods.

**TLT 218 Blood Banking and Transfusion Medicine 2+0 3,0**

Introduction to Blood Banking; Description of Blood Banking, History of Blood Banking and Transfusion; Current Situation in Our Country and in the World; Turkish Red Crescent and Blood Banking Legislation; Blood Services Units and Quality System in Blood Services Units; Recognition of General Blood Banking; Recognition of Blood Banking Laboratory Processes; Technical Information about Transfusion and Haemovigilance.

**TLT 220 Health Services Management 2+0 3,0**

Management: Management processes, Sources of management, Public administration; Healthcare Services: Preventive health services, Curative health services, Rehabilitative health services; Health Industry: Types of health businesses, Legal foundations of health institutions; Hospital Management; Health Services Organization: Legal Foundations of Health Care Organization in Turkey; Central and Provincial Health Service Organizations in Turkey; Hospital Management Organization; Hospital Management Organization in Some Countries and the International Health Organizations.

**TLT 221 Methods of Criminal Investigation 2+0 3,0**

Fundamental Concepts in Forensic Sciences; Human Genome and DNA Arrays; Evidence Collection and

Protection; Forensic Genetics Laboratory: Laboratory rules, Tools and equipment used in the laboratory, Chemical solutions used in the laboratory; Commercial Multiplex STR Kits; Methods of Investigation; DNA Isolation Methods; Quantitative Determination of DNA; DNA Amplification.

**TLT 222 Biosafety in Medical Laboratories 2+0 3,0**

The Concept of Biosafety and its Importance in Medical Laboratories; National and International Standards on Laboratory Safety; Biosafety Levels; Infectious Agents; Laboratory-Acquired Infections; Sterilization and Disinfection; Protection of Workers from Biological Risk Factors, Symbols and Warnings Used in Laboratory Safety.

**TLT 225 Basic Laboratory Applications II 1+2 4,0**

Microbiological sample collection, Medium preparation, Medium types, Basic staining, Complex staining, Compound painting, Gram stain, ARB stain, Unpainted microscopic examination methods, Preparation of blood sample, Sample transfer Using a microscope, Culture, Mycological analysis, Identification methods, analysis of hematological preparations make parasitological analysis, perform serological analysis, mycobacterial analysis.

**TLT 227 Serological Techniques 2+0 2,0**

Serology and its basic concepts; Antigen, Properties of Antigen, Types of antigens, Antibodies, Structure of antibodies, Classes of antibodies, Antigen-antibody interaction; Serological tests; Precipitation tests and their types; Agglutination tests and its types; Conjugation of complements and flocculation tests; Serological tests for early diagnosis; Fluorescent antibody tests (Immunofluorescence); ELISA(Enzyme-linked immunosorbent assay); RIA (Radioimmunoassay), Serological diagnosis of viral infections.

**TÜR 120 Turkish Sign Language 3+0 3,0**

Overview of Sign Language: Characteristics of sign language; History of Sign Language in the World: Emergence of language and sign language, Verbal education and approaches to sign language; History of Turkish Sign Language: Early period, Ottoman period, Period of the Republic of Turkey; Introduction to Turkish Sign Language: Finger alphabet, Pronouns, Introducing oneself and family, Greetings, Meeting, Relationship words; Showing Basic Words: Adjectives: Adjectives of quality, Adjectives of quantity; Verbs: Present tense, Past tense, Future tense, Time adverbs, Antonyms; Healthy Living: Expression of health-related problems, Sports terms, Expressing requirements; In a Bank: Expressions required to carry out basic procedures in a bank; Vacation: Basic words about vacation.

**TÜR 125 Turkish Language I 2+0 2,0**

Language: Characteristics of language, Relationship between language and thought and language and emotion, Theories about the origin of languages, Language types, The position of Turkish Language among world languages; Relationship Between Language and Culture; Historical Progress of the Turkish Language; Alphabets Used for Writing in Turkish; Turkish Language Studies; Turkish

Language Reform; Phonetics; Morphology and Syntax; The Interaction of Turkish Language with Other Languages; Wealth of Turkish Language; Problems Facing Turkish Language; Derivation of Terms and Words; Disorders of Oral and Written Expression.

**TÜR 126 Turkish Language II 2+0 2,0**

Composition: Written composition, Paragraph and ways of expression in paragraphs; Punctuation; Spelling Rules; Types of Written Expression and Practices I: Expository writing; Types of Written Expression and Practices II: Narrative writing; Academic Writing and Types of Correspondence; Reading and Listening: Reading, Reading comprehension strategies, Critical reading; Listening; Relationship between Listening and Reading; Oral Expression: Basic principles of effective speech; Body Language and the Role of Body Language in Oral Expression; Speech Types; Principles and Techniques of Effective Presentation; Some Articulatory Features of Oral Expression.

**YAB 103 Professional Terminology 2+0 3,0**

Pre-and Suffixes Used in Medical Terms; Medical Terms Related to Human Anatomy; Medical Terms Related to Movement and Nervous Systems; Medical Terms Related to Nervous System and Psychiatric Disorders; Medical Terms Related to Respiratory System; Medical Terms Related to Digestive System; Medical Terms Related to Cardiovascular System; Medical Terms Related to Blood and Hematopoietic Organs; Medical Terms Related to Urogenital System; Medical Terms Related to Endocrine System; Medical Terms Related to Eyes, Ears, Nose, Throat and Skin.

**YAB 116 Wound Care 1+0 2,0**

Physiological structure of the deep; Definition and classification of the wound; Wound healing; Chronic wound infections and causes; Wound care products; Diabetic foot ulcers, classification, care and treatment; Chronic wound care; Pressure sores and care; Oxygen therapy in wound care, permanent wound closure methods; burn wound care and treatment; formation and prevention of bedsores; The importance of nutrition in wound care.

**YAB 117 Principles and Practices in Elderly Care I 3+1 5,0**

Definition of aging and old age; The basic requirements for the elderly; The basic requirements for the elderly; Basic rules for the conduct of the elderly in nursing practice; Vital signs: body temperature, pulse, blood pressure, respiration measurement and recording; Vital signs: body temperature, pulse, blood pressure, respiration measurement and recording; personal hygiene and practices in the elderly; personal hygiene and practices in the elderly; bed making, comfortable lying positions; pressure sores and wounds in elderly care; pressure sores and wounds in elderly care.

**YAB 118 Principles and Practices in Elderly Care II 3+1 5,0**

To meet the nutritional needs of the elderly, the oral route and gavage feeding; oral and parenteral drug applications;

provide the elderly mobilization; provide the elderly mobilization; dependent elderly care beds; dependent elderly care beds; elderly care in the terminal period; elderly care in the terminal period; O2 therapy and aspiration in the elderly; denegs of fluid-electrolyte; foot problems and foot care in the elderly; Applications, to dermatological problems in the elderly.

**YAB 120 Drug Information 2+0 3,0**

Introduction to drug information and Definitions; Pharmaceutical Forms and Drug Applications Ways; Pharmacokinetic Properties; Drug Side Effects and Toxic Effects; Poisonings and Treatment; Pain in the elderly; Safe use of drugs in the elderly; Multiple drug use in the elderly; Autonomous Nervous System Drugs; Cardiovascular System Drugs; Drugs using in Nervous System Diseases and Psychiatric Diseases; Drugs using in Respiratory System Diseases; Drugs using in Digestion System Diseases; Antibiotics; Drugs using in Endocrine System Diseases; Drugs using in Cancer Treatment.

**YAB 122 Fundamentals of Gerontology 2+0 4,0**

Definition of Senescence and History of Gerontology; Changes appearing in Senescence and Types of Senescence; Factors affecting Senescence and Preventing of Premature Aging Problems, Evaluation of Aged Person; general Care of aged Person; senescence and ethics; Importance of Life Quality in aged People; Geriatric Emergencies; Common Problems and Care in Senescence; Healty and Active Aging; Conditions of aged People in Our Country.

**YAB 124 Successful Aging 2+0 3,0**

Introduction to Adulthood and Old Age; Cultural Differences and Aging in the 21st century; Theories and Approaches in Adulthood and Old Age, Research Method in Adulthood and Old Age Research; Characteristics of Successful Aging, Successful Aging and Cognitive Development; Successful Aging and Personality; Successful Aging and Social Relationships; Successful Aging and Healthcare System; Ageism and Consequences.

**YAB 208 Aged Care Services at Home 2+0 3,0**

Concept of Care at Home; The Place and Importance of Health Personnel in Care at Home; Expropriating of Home Care Services in Turkey; Organization and Coordination of Hospital Services and Home Care Services; Rehabilitation and Home Care of Hemiplegic Patient; Rehabilitation and Home Care of Diabetic Patient; Rehabilitation and Home Care of Continuous Peritoneal Dialysis in the outpatient.

**YAB 211 Gerontology Social Services 2+0 3,0**

Concept and History of Social Welfare; Definition and Scope of Social Services; History of Social Services; Social Work as a Scientific Discipline; Professional Qualifications of Social Services; Aims and Functions of Social Services; Distinctive Features of Social Work; Social Exclusion in Aging; Relationship Between Modern Society and Aging; Relationship Between Religion and Aging; Relationship Between Media and Aging.

**YAB 215 Communication with the Elderly 2+0 3,0**

Contact the definition and characteristics, the relationship between the source and the receiver, the type of communication, the features you need to move the resource, messages general characteristics, specifications required for the receiver, effective listening, stress and coping methods, the basic factors affecting communication with the elderly, the elderly impact on communication of changes old age, sensory loss, interaction with Alzheimer-dementia patients.

**YAB 216 Social Rehabilitation 2+0 4,0**

Definition and Scope of Social Rehabilitation; Protection of Self-Confidence to Continue Social Life in Old Age; Acquisition of Daily Life Skills; Attitudes and Behaviors of the Elderly Care Technician; Personnel; Social Problems Faced by the Elderly; Needs and Expectations of the Elderly; Home management, Home exercise programs, Leisure activities.

**YAB 217 Elderly Nutrition 2+0 3,0**

General nutrition definition and importance; carbohydrates, proteins, fats, vitamins, minerals, and water; adequate and balanced nutrition, food groups and food pyramid; aging and nutrition; Nutritional characteristics of the elderly, nutrition and cancer, nutrition in diabetes, healthy living and nutrition, drug interactions, medication nutrition of patients, the importance of nutrition in preventive and curative health services, the individual characteristics of the diet according to the shape of their life, factors related to nutrition in the development of disease, illness changes in diet must be done instantly.

**YAB 219 Knowledge of Disease 2+0 4,0**

Heart and Vascular Diseases Related to Old Age; Old Age Diseases of Respiratory System; Endocrine System Diseases Due to Old Age; Diseases of Gastrointestinal Tract Diseases in Old Age; Nephrological Diseases in the Elderly. Oncological Diseases in the Elderly; Neurological Diseases in the Elderly; Dementia; Alzheimer's; Common Rheumatic Diseases in the Elderly; Infectious Diseases Diagnosis; Testing; Prevention; Control; Immunization; Immune System and Host Defense; The hospital infections.

**YAB 222 Nutraceuticals 2+0 2,0**

Overview of Nutraceuticals and Functional Food; Role of Nutraceuticals and Functional Food in Human Health and Diseases; Place and Trade of Nutraceuticals and Functional Food in Turkey, in the European Union and in the World; Importance of Trace Substances; Problems Related to the Manufacturing and Control of Nutraceuticals; Antioxidants; Minerals; Fatty Acids; Nucleotides; Amino Acids; Phytosterols; Probiotics; Beta-Carotene; Phytosterols; Probiotics; Beta-Carotene; Proteins; Vegetable Extracts; Standardization and Product Stability.

**YAB 224 Personal Care 1+1 3,0**

Shaving: Hair shave definition, importance, types; Saç and beard cutting application; Depilation, definition, importance and types, Waxing, tweezers, razor use, Long and short hair styling, Hand, Foot and Nail Car; Definition, importance,

used tools and equipment, Manicure; and pedicure application, Personal hygiene, Body cleansing, nail cleaning, oral care, hair and beard cleaning application methods, used in cosmetic products.

**YAB 226 Occupational Therapy 1+1 2,0**

The definition of occupational therapy, basic principles and historical development; The importance of occupational therapy in the elderly; Regulation of elderly individuals living space; various wooden objects and wood painting techniques, plastic and acrylic paint application, Mental activity; Psychomotor activity; Art activities; Exercise and sporting activities; Music activities; Leisure activities; Game activities; Spiritual care activities.

**YAB 228 Palliative Care 2+0 2,0**

Palliative care in the elderly, and the basic concepts and principles of the process of planning the patients who need palliative care, and to evaluate the application; Palliative care patients and their families in need of psychiatric problem determination and control; Maintenance process in need of palliative care patients and their families; Terminal stage of planning patient care, practice and evaluate; Implementation of effective coping with bereavement period; Learn effective coping with bereavement period; Ethical and legal regulations related to palliative care; Case collections.

**YAB 229 Principles and Practices in Elderly Care III 3+1 5,0**

Cysteine cardiovascular problems and applications; cysteine cardiovascular problems and applications; The question of the respiratory system and applications; The question of the respiratory system and applications; care in neurological diseases; cases applications; care in gis disease; maintenance of urinary tract infections; cases applications; maintenance of skeletal disease; cases applications; care of the elderly in diseases of the eye; ear disease in elderly care; cases applications;

**YAB 230 Principles and Practices in Elderly Care IV 3+1 5,0**

Reproductive system diseases and treatments in the elderly; hematologic diseases and care for the elderly; protection and care of the elderly fall; suistimail elderly and iatrogenic problems in the elderly; anemia in the elderly; emergency procedures in the elderly; emergency procedures in the elderly; provide security environment; breathing; Urinary and fecal excretion; personal hygiene and the control of body temperature; movement and exercise; work and leisure; sleep in the elderly.

**YAB 232 Physical Rehabilitation 2+0 4,0**

Aging and the Physiology of the Effect of Aging Systems; The Effect of Exercise on the Systems; Introduction and Use of Walking Aids and Other Assistive Devices; The Elderly and Should Be Considered Exceptions to the Effects of Regular Physical Activity; Physical Activity and Musculoskeletal Diseases; The elderly; and Organizing Principles to be Applied Exercise Programs Techniques: Body Mechanics, The Upper and Lower Limb Exercises, and Exercises The Respiratory System, Arthritis and Prevention Gymnastics.

**YAB 234 Seminar 2+0 4,0**

Presentation of Basic Principles of Aged Care, the World's Aged Care Principles Elder Care Practices in Different Institutions in Turkey; Elderly Care Homes and Applications: The Patient in A Bed Rest Homes and Applications; Presentation of Mild Cognitive Impairment: Dementia presentation, Presentation of alzheimer's; Elderly Care and Related Social Information: Brochure preparation, tagline development, aged care work week events.

**YAB 236 Exercise and Recreational Activities in the Elderly 1+1 2,0**

Physiologic and Biomechanical Changes in the Elderly; Risk Factors in the Elderly and Exercise Planning; Motor Skills in Elderly and Exercise; Strength and Muscle Power in Elderly and Exercise; Posture Problems in Elderly and Exercise; Balance in Elderly and Exercise; Walking Disorders and Exercise Practices in the Elderly; Life Quality in Elderly, Exercise and Recreation.