

## YUNUS EMRE VOCATIONAL SCHOOL

Yunus Emre Vocational School started its education and training life with Pharmacy Services and Child Development Programs in 2008, 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  
Deputy Director : Assoc. Prof. Dr. Gökalp İŞCAN  
Secretary of High School : Nazan DUMAN

### STAFF

**Professors:** Göksel ARLI

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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 105       | Drama in Education  | 3+0 | 4,0 |
| ÇGE 110       | Learning and Teaching Techniques       | 2+0 | 4,0 | ÇGE 112       | Family Education  | 2+0 | 4,0 |
| ÇGE 115       | Child Development I                    | 2+0 | 4,0 | ÇGE 116       | Child Development II                                      | 2+0 | 4,0 |
| İNG 175 (Eng) | English I                              | 3+0 | 3,0 | ÇGE 223       | Child Nutrition   | 2+0 | 4,0 |
| MAT 126       | Mathematics                            | 2+0 | 2,0 | EDB 111       | Children's Literature and Media                           | 2+0 | 4,0 |
| SAĞ 205       | First Aid                              | 2+0 | 3,0 | İNG 176 (Eng) | English II  | 3+0 | 3,0 |
|               |  |     |     | TAR 166       | Atatürk's Principles and History of Turkish Revolution II | 2+0 | 2,0 |

|         |  |     |      |         |                            |     |      |
|---------|--|-----|------|---------|----------------------------|-----|------|
| TAR 165 | Atatürk's Principles and History of Turkish Revolution I | 2+0 | 2,0  | TÜR 126 | Turkish Language II        | 2+0 | 2,0  |
|         |  |     |      |         | <i>Elective Course (1)</i> | -   | 3,0  |
| TÜR 125 | Turkish Language I                                       | 2+0 | 2,0  |         |                            |     |      |
|         | <i>Departmental Elective Course (1)</i>                  | -   | 3,0  |         |                            |     | 30,0 |
|         | <i>Elective Course (1)</i>                               | -   | 2,0  |         |                            |     |      |
|         |  |     | 30,0 |         |                            |     |      |

### III. SEMESTER

|         |   |     |      |
|---------|---|-----|------|
| ÇGE 229 | Art and Creativeness in Childhood                         | 3+0 | 2,0  |
| ÇGE 231 | Special Education I                                       | 3+2 | 5,0  |
| ÇGE 233 | Practice in Preschool Education Institutions I            | 1+4 | 5,0  |
| ÇGE 235 | Material Development at Pre-school Education Institutions | 2+0 | 3,0  |
| ÇGE 237 | Communication with Children                               | 2+0 | 3,0  |
| İŞL 221 | Business Management and Quality                           | 2+0 | 3,0  |
| SAĞ 209 | Maternal and Child Health                                 | 2+0 | 3,0  |
|         | <i>Departmental Elective Course (1)</i>                   | -   | 4,0  |
|         | <i>Elective Course (1)</i>                                | -   | 2,0  |
|         |   |     | 30,0 |

### IV. SEMESTER

|         |   |     |      |
|---------|---|-----|------|
| ARY 208 | Research Methods and Techniques                 | 2+1 | 4,0  |
| ÇGE 111 | Inclusive Education                             | 2+0 | 3,0  |
| ÇGE 214 | Seminar   | 2+0 | 4,0  |
| ÇGE 232 | Special Education II                            | 3+2 | 5,0  |
| ÇGE 234 | Practice in Preschool Education Institutions II | 1+4 | 5,0  |
| OKÖ 202 | Child Psychology and Adaptation Problems        | 2+2 | 5,0  |
|         | <i>Departmental Elective Course (1)</i>         | -   | 4,0  |
|         |   |     | 30,0 |

### DEPARTMENTAL ELECTIVE COURSES

|         |   |     |     |
|---------|---|-----|-----|
| ÇGE 104 | Description of Guidance and Counseling Course   | 2+0 | 2,0 |
| ÇGE 106 | Diction and Body Language   | 2+0 | 3,0 |
| ÇGE 107 | Child and Music   | 3+0 | 4,0 |
| ÇGE 118 | Child Recreation and Entertainment  | 2+0 | 3,0 |
| ÇGE 120 | Personal Development  | 3+0 | 4,0 |
| ÇGE 206 | Training and Development of Unhealthy Children  | 2+2 | 3,0 |
| ÇGE 208 | Language Development and Development and Education of Children with Communication Disorders | 2+2 | 4,0 |
| ÇGE 209 | Education of the Gifted and Talented Children   | 2+2 | 3,0 |
| ÇGE 221 | Following Art Activities  | 2+0 | 3,0 |
| ÇGE 225 | Child Rights and Society  | 2+0 | 2,0 |

|         |                                     |     |     |
|---------|-------------------------------------|-----|-----|
| ÇGE 239 | Science and Technology on Childhood | 3+0 | 4,0 |
| ÇGE 241 | Child and Game                      | 2+0 | 3,0 |
| HUK 259 | Children's Law                      | 2+0 | 2,0 |
| SAN 217 | Fundamental Art Education           | 3+0 | 4,0 |

### ELECTIVE COURSES

|         |                              |     |     |
|---------|------------------------------|-----|-----|
| BEÖ 155 | Physical Education           | 2+0 | 2,0 |
| KÜL 199 | Cultural Activities          | 0+2 | 2,0 |
| MÜZ 151 | Short History of Music       | 2+0 | 3,0 |
| SAN 155 | Hall Dances                  | 0+2 | 2,0 |
| SNT 155 | History of Art               | 2+0 | 2,0 |
| SOS 155 | Folkdance                    | 2+0 | 2,0 |
| THU 203 | Community Services           | 0+2 | 3,0 |
| TİY 308 | Republic Era Turkish Theatre | 2+0 | 3,0 |
| TÜR 120 | Turkish Sign Language        | 3+0 | 3,0 |

## DEPARTMENT OF ELECTRONICS AND AUTOMATION

### BIOMEDICAL SCIENCES (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 |

#### 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 |

|         |  |     |             |         |   |     |             |
|---------|--|-----|-------------|---------|---|-----|-------------|
| BMB 105 | Cytology, Hematology and Immunology                      | 4+0 | 6,0         | TAR 166 | Atatürk's Principles and History of Turkish Revolution II | 2+0 | 2,0         |
| TAR 165 | Atatürk's Principles and History of Turkish Revolution I | 2+0 | 2,0         | TÜR 126 | Turkish Language II<br><i>Elective Course (1)</i>         | 2+0 | 2,0         |
| TÜR 125 | Turkish Language I<br><i>Elective Course (1)</i>         | 2+0 | 2,0         |         |   | -   | 2,0         |
|         |  |     |             |         |   |     | <u>30,0</u> |
|         |  |     | <u>30,0</u> |         |   |     |             |

### III. SEMESTER

|               |                                  |     |             |
|---------------|----------------------------------|-----|-------------|
| 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         |
|               |                                  |     | <u>30,0</u> |

### IV. SEMESTER

|              |  |     |             |
|--------------|--|-----|-------------|
| 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<br><i>Elective Course (1)</i> | 5+0 | 7,5         |
|              |  | -   | 7,5         |
|              |  |     | <u>30,0</u> |

### 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 |
| ÇEV 322       | Environment Health                                | 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

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

#### I. SEMESTER

|               |  |     |             |
|---------------|--|-----|-------------|
| BİL 150       | Fundamentals of Information Technology                   | 4+0 | 5,0         |
| İNG 175 (Eng) | English I  | 3+0 | 3,0         |
| SGH 101       | Skincare   | 1+3 | 5,0         |
| SGH 103       | Fundamentals of Makeup                                   | 2+2 | 5,0         |
| SGH 105       | Hairdressing and Care I                                  | 2+3 | 6,0         |
| TAR 165       | Atatürk's Principles and History of Turkish Revolution I | 2+0 | 2,0         |
| TÜR 125       | Turkish Language I<br><i>Elective Course (1)</i>         | 2+0 | 2,0         |
|               |  | -   | 2,0         |
|               |  |     | <u>30,0</u> |

#### II. SEMESTER

|               |   |     |             |
|---------------|---|-----|-------------|
| İNG 176 (Eng) | English II  | 3+0 | 3,0         |
| KİM 120       | Fundamentals of Chemistry                                 | 2+0 | 4,0         |
| SGH 104       | Microbiology and Hygiene                                  | 2+0 | 4,0         |
| SGH 106       | Hairdressing and Care II                                  | 2+3 | 6,0         |
| SGH 108       | Hair and Skin Diseases                                    | 2+0 | 4,0         |
| SGH 205       | Hair and Makeup Design on the Computer                    | 1+1 | 3,0         |
| TAR 166       | Atatürk's Principles and History of Turkish Revolution II | 2+0 | 2,0         |
| TÜR 126       | Turkish Language II<br><i>Elective Course (1)</i>         | 2+0 | 2,0         |
|               |   | -   | 2,0         |
|               |   |     | <u>30,0</u> |

| <b>III. SEMESTER</b> |   |     |      |
|----------------------|---|-----|------|
| ANA 215              | Fundamentals of Body and Physiology     | 2+0 | 3,0  |
| SGH 203              | Makeup for the Stage and the Lens       | 1+2 | 4,0  |
| SGH 209              | Hand-Foot and Nail Care                 | 1+3 | 4,0  |
| SGH 211              | Professional Massaging                  | 1+2 | 3,0  |
| SGH 213              | Epilation                               | 1+2 | 3,0  |
| SGH 215              | Wig Applications                        | 1+1 | 3,0  |
| SGH 217              | Hair Styling I                          | 1+3 | 5,0  |
|                      | <i>Departmental Elective Course (1)</i> | -   | 3,0  |
|                      | <i>Elective Course (1)</i>              | -   | 2,0  |
|                      |   |     | 30,0 |

| <b>IV. SEMESTER</b> |  |     |      |
|---------------------|--|-----|------|
| EST 202             | Esthetics and Ethics                     | 2+0 | 4,0  |
| İŞL 209             | Business Management                      | 2+0 | 2,0  |
| KOZ 204             | Cosmetic Products                        | 2+0 | 4,0  |
| SGH 210             | Body Care                                | 2+0 | 4,0  |
| SGH 218             | Hair Styling II                          | 1+3 | 6,0  |
|                     | <i>Departmental Elective Courses (2)</i> | -   | 10,0 |
|                     |  |     | 30,0 |

#### **DEPARTMENTAL ELECTIVE COURSES**

|         |                           |     |     |
|---------|---------------------------|-----|-----|
| ÇGE 106 | Diction and Body Language | 2+0 | 3,0 |
| SAN 219 | Fundamental Art Education | 2+0 | 3,0 |
| SGH 110 | Bun-making                | 0+3 | 5,0 |
| SGH 212 | Nail Care                 | 1+2 | 5,0 |
| SGH 214 | Special Care Practices    | 0+2 | 5,0 |

|         |                               |     |     |
|---------|-------------------------------|-----|-----|
| 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 |
| SNT 155 | History of Art                | 2+0 | 2,0 |
| SOS 155 | Folkdance                     | 2+0 | 2,0 |
| THU 203 | Community Services            | 0+2 | 3,0 |
| TİY 308 | Republic Era Turkish Theatre  | 2+0 | 3,0 |
| TÜR 120 | Turkish Sign Language         | 3+0 | 3,0 |

#### **ELECTIVE COURSES**

|         |                    |     |     |
|---------|--------------------|-----|-----|
| BEÖ 155 | Physical Education | 2+0 | 2,0 |
|---------|--------------------|-----|-----|

## **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**

| <b>I. SEMESTER</b> |  |     |      |
|--------------------|--|-----|------|
| 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 175 (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 107            | Principles and Practices in Elderly Care I               | 3+1 | 5,0  |
|                    | <i>Elective Course (1)</i>                               | -   | 2,0  |
|                    |  |     | 30,0 |

| <b>II. SEMESTER</b> |   |     |      |
|---------------------|---|-----|------|
| İNG 176 (Eng)       | English II  | 3+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  |
| YAB 104             | Fundamentals of Gerontology                               | 3+0 | 5,0  |
| YAB 108             | Principles and Practices in Elderly Care II               | 3+1 | 5,0  |
| YAB 110             | Pharmacology  | 2+0 | 5,0  |
| YAB 112             | Infectious Diseases                                       | 3+0 | 5,0  |
|                     | <i>Elective Course (1)</i>                                | -   | 3,0  |
|                     |   |     | 30,0 |

| <b>III. SEMESTER</b> |  |         |
|----------------------|--|---------|
| İLT 219              | Interpersonal Relations                      | 2+0 2,0 |
| PSİ 207              | Psychology                                   | 2+0 3,0 |
| SAĞ 102              | First Aid                                    | 2+0 2,5 |
| SOS 220              | Health Sociology                             | 2+0 2,0 |
| YAB 207              | Principles of Nutrition                      | 2+0 3,0 |
| YAB 209              | Principles and Practices in Elderly Care III | 3+1 5,0 |
| YAB 211              | Gerontology Social Services                  | 2+0 3,0 |
| YAB 213              | Knowledge of Diseases I                      | 2+0 3,5 |
|                      | <i>Departmental Elective Courses (2)</i>     | - 4,0   |
|                      | <i>Elective Course (1)</i>                   | - 2,0   |
|                      |  | 30,0    |

| <b>IV. SEMESTER</b> |   |         |
|---------------------|---|---------|
| PSİ 214             | Geropsychiatry                          | 2+0 3,0 |
| SAĞ 218             | Public Health                           | 2+0 3,0 |
| YAB 208             | Aged Care Services at Home              | 2+0 3,0 |
| YAB 214             | Knowledge of Disease II                 | 2+0 4,0 |
| YAB 216             | Social Rehabilitation                   | 2+0 3,0 |
| YAB 218             | Physical Rehabilitation                 | 2+2 4,0 |
| YAB 220             | Seminar                                 | 2+1 4,0 |
|                     | <i>Departmental Elective Course (1)</i> | - 4,0   |
|                     | <i>Elective Course (1)</i>              | - 2,0   |
|                     |   | 30,0    |

#### **DEPARTMENTAL ELECTIVE COURSES**

|         |                                 |         |
|---------|---------------------------------|---------|
| ARY 207 | Research Methods and Techniques | 2+0 2,0 |
| İŞL 211 | Total Quality Management        | 2+0 3,0 |
| TIY 221 | Creative Drama                  | 2+0 3,0 |
| TLT 202 | Medical Waste                   | 2+0 3,0 |
| YAB 222 | Nutraceuticals                  | 2+0 4,0 |

|         |                               |         |
|---------|-------------------------------|---------|
| MÜZ 155 | Turkish Folk Music            | 2+0 2,0 |
| MÜZ 157 | Traditional Turkish Art Music | 2+0 2,0 |
| SHZ 106 | Introduction to Social Work   | 2+0 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 |
| TÜR 120 | Turkish Sign Language         | 3+0 3,0 |
| YAB 114 | Disinfectants and Their Uses  | 2+0 4,0 |

#### **ELECTIVE COURSES**

|         |                     |         |
|---------|---------------------|---------|
| BEÖ 155 | Physical Education  | 2+0 2,0 |
| KÜL 199 | Cultural Activities | 0+2 2,0 |

## **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 skills 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 175 (Eng)      | English I  | 3+0 3,0 |
| KİM 135            | Fundamental of Chemistry I                               | 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 6,0 |
| TÜR 125            | Turkish Language I                                       | 2+0 2,0 |
|                    | <i>Elective Course (2)</i>                               | - 5,0   |
|                    |  | 30,0    |

| <b>II. SEMESTER</b> |   |         |
|---------------------|---|---------|
| ANA 108             | Physiology  | 2+0 3,0 |
| BİY 110             | Fundamental of Microbiology                               | 2+0 4,0 |
| İNG 176 (Eng)       | English II  | 3+0 3,0 |
| KİM 130             | Fundamentals of Biochemistry                              | 2+0 4,0 |
| KİM 136             | Fundamental of Chemistry II                               | 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 5,0 |
| TÜR 126             | Turkish Language II                                       | 2+0 2,0 |
|                     | <i>Elective Course (1)</i>                                | - 3,0   |
|                     |   | 30,0    |

| <b>III. SEMESTER</b> |  |     |      |
|----------------------|--|-----|------|
| ETK 207              | Professional Ethics                      | 2+0 | 3,0  |
| KİM 243              | Clinical Biochemistry                    | 2+0 | 5,0  |
| KİM 265              | Applications in Clinical Biochemistry    | 1+2 | 5,0  |
| TLT 203              | Hematology                               | 2+0 | 3,0  |
| TLT 213              | Experimental Animals                     | 2+0 | 4,0  |
| TLT 215              | Parasitology                             | 2+0 | 4,0  |
|                      | <i>Departmental Elective Courses (2)</i> | -   | 6,0  |
|                      |  |     | 30,0 |

| <b>IV. SEMESTER</b> |  |     |      |
|---------------------|--|-----|------|
| BİY 236             | Cytology                                 | 2+0 | 5,0  |
| SAĞ 220             | Public Health                            | 2+0 | 5,0  |
| SAĞ 222             | First Aid                                | 2+1 | 3,0  |
| TLT 214             | Pathology                                | 2+0 | 5,0  |
| TLT 220             | Health Services Management               | 2+0 | 3,0  |
|                     | <i>Departmental Elective Courses (3)</i> | -   | 9,0  |
|                     |  |     | 30,0 |

#### **DEPARTMENTAL ELECTIVE COURSES**

|         |  |     |     |
|---------|--|-----|-----|
| BİY 238 | Microscopy and Preparation Techniques  | 2+0 | 3,0 |
| İLT 201 | Interpersonal Communication            | 3+0 | 4,5 |
| PSİ 202 | Introduction to Psychology             | 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 219 | Biotechnology and Biosafety            | 2+0 | 3,0 |
| TLT 221 | Methods of Criminal Investigation      | 2+0 | 3,0 |
| TLT 223 | Laboratory Knowledge                   | 2+0 | 3,0 |
| YAB 114 | Disinfectants and Their Uses           | 2+0 | 4,0 |

#### **ELECTIVE COURSES**

|         |                               |     |     |
|---------|-------------------------------|-----|-----|
| BEÖ 155 | Physical Education            | 2+0 | 2,0 |
| KÜL 199 | Cultural Activities           | 0+2 | 2,0 |
| MÜZ 151 | Short History of Music        | 2+0 | 3,0 |
| MÜZ 155 | Turkish Folk Music            | 2+0 | 2,0 |
| MÜZ 157 | Traditional Turkish Art Music | 2+0 | 2,0 |
| SNT 155 | History of Art                | 2+0 | 2,0 |
| SOS 155 | Folkdance                     | 2+0 | 2,0 |
| THU 203 | Community Services            | 0+2 | 3,0 |
| TİY 308 | Republic Era Turkish Theatre  | 2+0 | 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> |  |     |      |
|--------------------|--|-----|------|
| BİL 150            | Fundamentals of Information Technology                   | 4+0 | 5,0  |
| BİY 131            | Basic Biology  | 2+0 | 4,0  |
| ECY 103            | Introduction to Pharmacy Technician I                    | 2+0 | 5,0  |
| ECY 105            | Occupational Terminology                                 | 2+0 | 3,0  |
| İNG 175 (Eng)      | English I  | 3+0 | 3,0  |
| MAT 134            | Vocational Mathematics                                   | 3+1 | 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 Course (1)</i>                               | -   | 2,0  |
|                    |  |     | 30,0 |

| <b>II. SEMESTER</b> |   |     |      |
|---------------------|---|-----|------|
| ANA 114             | Basic Anatomy   | 2+0 | 4,0  |
| ANA 124             | Basic Physiology  | 2+0 | 4,0  |
| ECY 104             | Introduction to Pharmacy Technician II                    | 2+2 | 5,0  |
| ECY 106             | Principles of Pharmacy Services and Code of Ethics        | 2+0 | 4,0  |
| İNG 176 (Eng)       | English II  | 3+0 | 3,0  |
| KİM 116             | Basic Chemistry   | 2+1 | 4,0  |
| 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 Course (1)</i>                                | -   | 2,0  |
|                     |   |     | 30,0 |

### 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 211 | Practical Information on Drugs | 6+0 | 7,0   |
| KİM 263 | Basic Biochemistry             | 2+0 | 5,0   |
| SAĞ 203 | Basic Public Health            | 2+0 | 3,0   |
| SAĞ 205 | First Aid                      | 2+0 | 3,0   |
|         | <i>Elective Course (1)</i>     | -   | 2,0   |
|         |                                |     | <hr/> |
|         |                                |     | 30,0  |

### ELECTIVE COURSES

|         |                            |     |     |
|---------|----------------------------|-----|-----|
| BEÖ 155 | Physical Education         | 2+0 | 2,0 |
| ÇEK 312 | Labor Law                  | 2+0 | 3,0 |
| ECY 213 | Non-prescription Drugs     | 1+0 | 2,0 |
| ECY 215 | Basic Immunology           | 2+0 | 3,0 |
| İKT 222 | Health Economy             | 2+0 | 2,0 |
| İŞL 109 | Introduction to Business   | 2+0 | 3,5 |
| KÜL 199 | Cultural Activities        | 0+2 | 2,0 |
| MUH 113 | Introduction to Accounting | 2+2 | 4,0 |

### IV. SEMESTER

|         |                                 |     |       |
|---------|---------------------------------|-----|-------|
| ECY 208 | Drug Forms and Medical Supplies | 4+1 | 7,0   |
| ECY 210 | Natural Products                | 2+1 | 4,0   |
| ECY 212 | Drug Intoxication               | 2+0 | 4,0   |
| İLT 201 | Interpersonal Communication     | 3+0 | 4,5   |
| KOZ 202 | Cosmetic Products               | 2+0 | 3,5   |
| PZL 252 | Sales Management                | 2+0 | 3,0   |
|         | <i>Elective Courses (2)</i>     | -   | 4,0   |
|         |                                 |     | <hr/> |
|         |                                 |     | 30,0  |

|         |                               |     |     |
|---------|-------------------------------|-----|-----|
| MÜZ 155 | Turkish Folk Music            | 2+0 | 2,0 |
| MÜZ 157 | Traditional Turkish Art Music | 2+0 | 2,0 |
| SNT 155 | History of Art                | 2+0 | 2,0 |
| SOS 155 | Folkdance                     | 2+0 | 2,0 |
| SOS 220 | Health Sociology              | 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..

#### ARY 207 Research Methods and Techniques 2+0 2,0

Basic Concepts of Research: Knowledge, Science, Research, Scientific method, Steps of scientific method, Scientific research, Types of scientific research, Applied research;

Research Topic (Problem); Factors Affecting the Selection of Research Topic; Variables and Types of Variables; Sub-problems; Related Resources: Literature survey; Answering the Research Problem: Hypothesis; Objectives; Importance; Foundations (Assumptions) of Research; Limitations; Definitions; Literature Review: Research Method; Population and Sample.

**ARY 208 Research Methods and Techniques 2+1 4,0**

Basic Concepts of the Research; Information, Science, Research, The Scientific Method, The stages of scientific method, Scientific research, Types of basic research, Applied research, Research problem; Factors affecting the choice of research topic, Variable and variable species, Sub problems, Related resources (literature), The research problem (hypothesis); Purpose; Importance; Research Based on Assumptions; Constraints, Definitions; Resource to Research; Research method, Population and sampling, Sampling methods, Data collection, Data collection methods used.

**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.

**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 4,0**

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.

**ÇEK 312 Labor Law 2+0 3,0**

Principles and History of Labor Law; Labor Code; Contract of Service: Formation, Types, Obligations, Termination and its consequences; Regulation of Work; Trade Unions: Formation, Organization, Structure, Termination, Control; Union Membership; Guarantees of Union Membership; Collective Labor Agreements: Signing and application of the agreement; Strikes and Lockouts: Concept, Application, Consequences.

**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 4,0**

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 3,0**

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 115 Child Development I 2+0 4,0**

Basic Concepts Related to Development: Growth, Maturation, Learning, Development, Readiness, 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 in children aged 0-12 years; Psycho-motor Development: Importance, Basic concepts, Psycho-motor development in children aged 0-12 years, Psycho-motor development at juvenile age; Mental Development: Importance, Basic concepts, Effective factors, Piaget's theory of cognitive development.

**ÇGE 116 Child Development II 2+0 4,0**

Language Development: Importance, Factors affecting language development, Stages of development, Approaches to language acquisition, Relationship between mind and language development; Emotional Development: Importance, Basic concepts, Features of emotional development in children aged 0-12 years, Social developmental characteristics in adolescence, Erikson's psychosocial development theory; Sexual Development: Importance, Basic concepts, Freud's theory of personality and stages of sexual development, Sexual development in adolescence.

**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 206 Training and Development of Unhealthy Children 2+2 3,0**

Chronic Illnesses and Children: Definition, Fundamental concepts, Classification; Chronic Illnesses Childs Physical Development: Physical Properties of childs, Personality properties; Prevention and Prediagnosis: Medical prevention methods to prevent the illness, Importance of prediagnosis, Importance of family cooperation; Education: Required changes to install structure, Different education tools, Education programs.

**ÇGE 208 Language Development and Development and Education of Children with Communication Disorders 2+2 4,0**

Definition and Classification of Speech Disorders; Causes of Communication Disorders: Speech disorders due to organic malformations, Organs used for speech and their roles in speech disorders, Effects of central nervous system and its role in communication disorders, Speech and language disorders related to cognitive disorders, Functional speech disorders, Communication disorders related to serious psychological and social factors; Types of Speech Disorders: Articulation disorders, Voice disorders, Phonological disorders, Other speech defects; Developmental Aspects of Children with Communication Disorders; Education of Children with Communication Disorders; Prevention and Early Diagnosis of Speech and Language Impairments.

**ÇGE 209 Education of the Gifted and Talented Children 2+2 3,0**

Definition and Classification of the Gifted and Talented Children: Terms and concepts, Definitions, Prevalence, Classification; Developmental and Sociocultural Characteristics: Physical, Creative, Learning, Leadership, Motivational, Sociocultural; The Importance of Early Identification: The reasons of special education, Civilization and gifted persons, Research on the gifted persons, The importance of early identification, Identification methods; Needs of education: History of their education, Education practices, Special school, Special class, Inclusive education, Enrichment, Practices in Turkey, Considerations of their education.

**ÇGE 214 Seminar 2+0 4,0**

Things to Be Done to Develop The Creativeness of The Child; Cognitive Development Applications; Comprehension of The Operation of Systems in Children; Principal Terms Related to Development; Developmental Stages That Form Personality; Behaviour Development According to The Intelligence and Physical Situation of Children; The Role and Importance of The Game: Developing game pouch and increasing game creativeness; Related Applications and Seminar Presentations.

**ÇGE 221 Following Art Activities 2+0 3,0**

Definition and Historical Development of Art; Art in Religions, Art in Countries; Art in Systems; Izms and Development of Izms from Beginning up Today; Place of Art Among the Other Professions; Branches of the Art: Plastic arts (Painting, Sculpture, Architecture), Decorative arts (Graphic, Ceramic, Industrial productions design and architecture, Textile, Fashion, Furniture, Glass, Accessory etc.), Cinema, Photograph, Phonetic arts (Music, Theatre, Opera, Operetta), Puppet, 3D Animation, Ballet, Dance; Literature and Types of Literature; Phonetic Arts in Religions; Phonetic Arts and Development of Phonetic Art in Countries and in Systems.

**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 231 Special Education I 3+2 5,0**

Basic Concepts in Special Education; Development of Special Education; Relation Between General Education and Special Education; Principles of Special Education; Students with Visual Impairment, Hearing Impairment and Communication Disorders: Definition, Classification, Identification, Prevalence, Causes and Prevention; Education of Children with Visual Impairment, Hearing Impairment and Communication Disorders; Children with Physical and Health Impairment, Gifted Children and Maladjusted Children: Definition, Classification, Identification, Prevalence, Causes and Prevention.

**ÇGE 232 Special Education II 3+2 5,0**

Diagnosis and Classification of Learning Disabilities: Causes of learning disabilities, Prevention and early diagnosis, Education of children with learning disabilities; Diagnosis and Classification of Mental Retardation: Causes of mental disability, Prevention and early diagnosis, Education of mentally disabled persons; Identification and Classification of Physical Disabilities: Causes of physical disabilities, Prevention and early diagnosis, Education of the physically disabled.

**ÇGE 233 Practice in Preschool Education Institutions I 1+4 5,0**

Characteristics of Physical, Social and Educational Environment in Preschool Education Institutions; Course Software Evaluation and Selection; Distance Education Applications; Course Planning: Annual plans, Daily plans; Planning and Implementation of Leisure-Time Activities; Planning and Implementation of Turkish-Language Activities; Planning and Implementation of Game Activities; Planning and Implementation of Music Activities.

**ÇGE 234 Practice in Preschool Education Institutions II 1+4 5,0**

Creative Drama Activities: Planning of activities, Implementation of activities; Reading and Writing Preparation Activities: Planning and implementation of activities; Art Activities: Activity planning, Implementation of art activities; Science and Nature Activities: Planning Activities, Implementation of activities; Field Trips.

**ÇGE 235 Material Development at Pre-school Education Institutions 2+0 3,0**

Importance and Role of Tools and Materials in Education; Selection of Instructional Tools and Materials; Design of Visual Materials: Features of visual design elements, Visual design principles; Instructional Materials and Effective Use of Materials; Computer Use in Education: Computer-assisted instruction, Computer-based instruction, Computer-supported teaching methods; Distance Education: Definition of distance education, Use of technology in distance education; Evaluation.

**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 239 Science and Technology on Childhood 3+0 4,0**

Preschool Science Education; Scientific Activities; Computer Use in Education: Computer-supported activities; Role of Learners in the Use of Technology in Education; Teacher's Role in the Use of Technology in Education; Technology Competencies of Early Childhood Teachers; Effects of Computer on Development and Learning; Results of the Use of Technology in Education; Software Programs Used in Preschool Education; Technology-Supported Early Childhood Education Activities; Advantages of Computer Technologies for Individuals with Special Needs.

**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.

**ECY 103 Introduction to Pharmacy Technician I 2+0 5,0**

Definition and Parts of Pharmacy; Healthcare Professionals in the Pharmacy; Pharmacy Technicians: Definition, Job description, Workplaces, Responsibilities; Drug Nomenclature; Organization of Drugs; Drug Expiration Date, Effects of Temperature, Light and Moisture on Drugs; Filing the Documents; Prescription and Non-prescription Medications; Prescriptions That Require Special Handling; Vocational Terminology and Concepts; Definition of Codex and Pharmacopoeia.

**ECY 104 Introduction to Pharmacy Technician II 2+2 5,0**

An Overview of the Pharmaceutical Industry: Development of the Turkish pharmaceutical industry, World pharmaceutical industry; Pharmaceutical Distribution Channels: Drug wholesalers, Pharmacy cooperatives; Communique on Health Practices; Prescription Control; Legislation on Pharmaceutical Distributors; Basic Software Used in Pharmacies: Pharmacy Automation Programs; Procedures of Product Entry; Use of Cash Register and POS device; Institutions Inspecting Pharmacies.

**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 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 208 Drug Forms and Medical Supplies 4+1 7,0**

Basic Reference Books: Medical formulas, Vademecum, etc.; Labeling 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; Concepts of Bioavailability and Bioequivalence; Surgical and Medical Supplies; Rules of Working in the Laboratory; Chemical Substances Commonly Found in Pharmacy Laboratories.

**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 211 Practical Information on Drugs 6+0 7,0**

Basic Concepts Related to Drugs; Local and Systemic Applications; Absorption, Distribution, Metabolism, Excretion; Pharmacodynamics: Drug effects, Antagonism; Factors Changing Drug Effects; Drug Interactions; Drugs Used in the Treatment of Cardiovascular System Diseases; Drugs Used in the Treatment of Endocrine System Diseases; Drugs Used in the Treatment of Digestive System Diseases; Drugs Used in the Treatment of Central Nervous System Diseases; Drugs Used in the Treatment of Respiratory System Diseases; Drugs Used in the Treatment of Ear, Nose and Throat Diseases; Drugs Used in the Treatment of Eye Diseases; Chemotherapeutics.

**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 215 Basic Immunology 2+0 3,0**

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.

**EDB 111 Children's Literature and Media 2+0 4,0**

Characteristics of Children's Publications; Features of Printed Publications; Features of Visual Publications; Evaluation of Printed and Visual Publications for Pre-school Children; Evaluation of Printed and Visual Publications; Guiding Children and Parents to Use Children's Publications; Effective Methods for Using Publications for Children:

Works of children's literature, Printed media publications, Creating a sample archive of children's literature.

**EST 202 Esthetics and Ethics** 2+0 4,0  
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 219 Interpersonal Relations** 2+0 2,0  
Conceptual Aspects of Communication; Variables Affecting Communication; Self-Recognition; Perception; Listening and Active Listening; I Language; Empathy; Assertiveness; Stress and Coping Methods; Communication with Elderly People; Interpersonal Communication: Family, School, Shopping, Workplace; Elimination of Problems in Interpersonal Communication; Communication Conflicts and Elimination of Conflicts; Factors Facilitating Communication; Role of Emotions in Communication; Effective Speaking and Active Listening; Body Language; Rights and Responsibilities; Values and Their Role in Communication.

**İNG 175 English I** 3+0 3,0  
Using the Verb 'to be'; Saying Name, Phone Number and e-mail Address; Describing Things and Places in a Classroom; Asking for Help While Studying; Using the Verb 'to be' in Questions, Describing Favourite Celebrities, Friends and Family; Using Simple Present Statements, Yes-No Questions and Short Answers; Talking about Daily and Weekly Routines; Saying How Often You Do Things; Talking about Free-time Activities and TV shows; Using 'there is, there are'; Using 'some, no, a lot of, and a couple of'; Describing Neighbourhood and Local Events; Asking for and Telling the Time.

**İNG 176 English II** 3+0 3,0  
Using the Present Continuous; Talking About the Weather and Sports; Using 'like to', 'want to', 'need to' and 'have to' with Other Verbs; Using 'this', 'that', 'these', 'those'; Asking Questions with 'How much'; Talking about Clothes, Colours, Shopping and Prices; Using can; Talking about Countries, Languages, and Nationalities; Talking about International Foods; Using the Simple Past of Regular and Irregular Verbs; Using the Past of be; Asking Simple Past Information Questions; Describing Past Experiences; Using Many and Much; Using Some and Any; Using Would Like; Describing Favourite Foods and Eating Habits; Using 'or something' and 'or anything'.

**İŞL 109 Introduction to Business** 2+0 3,5  
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 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.

**İŞL 211 Total Quality Management** 2+0 3,0  
Quality and Quality Management; Classical Management; Basic Concepts and Approaches in Total Quality Management: Quality, Quality check, Quality guarantee; Functions of Total Quality Management as a Managing System; Human Factor and Quality Cycle; Techniques in Total Quality Management: Pre-evaluation, Comparison, Problem solving techniques, Evaluating data and statistics, Creating a Total Quality Culture in Organizations; Quality and Cost systems; ISO 9000 Standards; Role and Responsibilities of Executives in Total Quality Management.

**İŞL 221 Business Management and Quality** 2+0 3,0  
Fundamental Concepts and Objectives of Business and Management: Basic concepts, Targets of a business, Its place in the economic structure, Difference between manager and entrepreneur; Classification of Business: Size, Ownership, Legal classification; Establishment, Size and Capacity: Stages of establishment, Choice of location, Determining size, Capacity; Functions: Management, Organization, Planning; Functioning of Organization: Leadership, Strategy, Change, Groups; Motivation: Quality, Quality control, Quality assurance, Total quality management, Preventive approach and continuous improvement.

**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 135 Fundamental of Chemistry I** 2+0 4,0  
Basic Concepts: Substance, Element, Compound, Mixture, Atom, Molecule, Mole; Units of Measurement; Liquids and Mixtures; Properties of Liquids: Evaporation, Freezing/Melting, Viscosity, Mixtures; Concentration of Solutions: Percentage concentration, Mole fraction, Molarity, Molality, Normality; Ideal Solutions: Boiling point and freezing point of ideal solutions; Concepts Related to Solubility; Solubility of Different States of Matter; Factors Affecting Solubility of Substances.

**KİM 136 Fundamental of Chemistry II** 2+0 4,0  
Chemical Kinetics; Reaction Rate and Factors Affecting Reaction Rate: Structures of reactants, Concentration of reactants, Temperature, Catalyst; Chemical Equilibrium: Direction of reaction and equilibrium, Equilibrium constants, Factors affecting equilibrium; Acids-Bases: General concepts related to acids and bases, Identification parameters of acids and bases; Concepts of Element and Molecular Relations; Intermolecular Attraction Force; Chemical Bonds; Metal-Ametal; Aliphatic and Aromatic Hydrocarbons.

**KİM 243 Clinical Biochemistry** 2+0 5,0  
Introduction to Clinical Biochemistry; Types of Biochemical Materials: Blood, Urine, Feces, Biological fluids, Tissue; Preparing Biological Material for Analysis; Clinical Laboratory Techniques in Biochemistry; Molecular Diagnostic Tests in Clinical Biochemistry: Sedimentation, Hemogram, Coagulation and Fibrinolysis; Urine Sample: Getting, Keeping, Clinical evaluation of urine; Protein and Glucose in Urine: Blood and glucose measurement methods; Laboratory Tests Used in Diagnosis and Monitoring of Diabetes; Biochemical Examination of Body Fluids Other Than Blood and Urine.

**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 265 Applications in Clinical Biochemistry 1+2 5,0**

Materials Used in The Laboratory; Analysis of Biochemical Materials: Blood, Urine, Feces, Biological fluids, Tissue; Preparing Biological Material for Analysis; Clinical Laboratory Techniques in Biochemistry; Molecular Diagnostic Tests in Clinical Biochemistry: Sedimentation, Hemogram, Coagulation and Fibrinolysis; Urine Sample: Getting, Keeping, Clinical evaluation of urine; Protein and Glucose in Urine: Blood and glucose measurement methods; Laboratory Tests Used in Diagnosis and Monitoring of Diabetes; Biochemical Examination of Body Fluids Other Than Blood and Urine.

**KOZ 202 Cosmetic Products 2+0 3,5**

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 204 Cosmetic Products 2+0 4,0**

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.

**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.

**MUH 113 Introduction to Accounting 2+2 4,0**

Concepts: Financial Transactions, Balance of Assets-Liabilities, Balance Sheet and Income Statement; Accounts of Balance Sheet and Income Statement: Concept of account, Types of accounts, Account Chart; Document and Books; Accounting Process: Follow up Goods Transactions; Liquid assets, Marketable Securities, Receivables, Long Term Assets, Liabilities, Shareholders Equity, Transactions of Income and Expenses; Ended Period Transactions: Concepts About Inventory and Inventory Transactions; Measurements of Valuation; Inventory Transactions About Preparation Financial Statements; Inventory Transactions About Income and Expenses; Preparation Trial Balance; Accounting Mistakes and Errors; Reparation Balance Sheet; Preparation Income Statements.

**MÜZ 151 Short History of Music 2+0 3,0**

Mile Stones in the History of Music; Music of the Antique Period; Music of Far East; Music of Anatolia; Music of the Middle Ages: Gregorian Chants; Music of Renaissance: Bach and Handel; Music of the Classical Age; Pianoforte in the Classical Age; Romantic Age; Nationalist Movement; Contemporary Music; Nationalism and Universality.

**MÜZ 155 Turkish Folk Music 2+0 2,0**

Folk songs from different Regions of Turkey are Taught; Aegean Region Zeybek Folk Songs: Eklemidir 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 önu 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.



**OKÖ 202 Child Psychology and Adaptation Problems** 2+2 5,0

Psychology Concept; Various Theories About Psychology Concept; Psychological Maturity; Child Psychology and Psychological Development Periods; Description and Reasons of Psychological Defects; General Signals of Psychological Defects; Defense Mechanisms Developed by Individual; Psychology in Family; Consistency Defects on Child: Reasons of consistency problems; Neurosis in Childhood and Psychosis in Childhood.

**PSİ 202 Introduction to Psychology** 2+0 3,0

Basic Concepts in Psychology; Theories of Psychology; Approach of Gestalt; Behavioral Approach; Psychoanalytic Approach; Structuralism; Humanistic Approach; Study Fields of Psychology; Its Role in Social Sciences and Its Relation With Other Sciences; Biological Foundations of Behavior; Psychological Foundations of Behavior; Excitement, Motivation, Anxiety, and Stress; Hindrance and Conflict; Mental Health and Mechanisms of Defense; Individual Differences; Intelligence and Talents; Personality; Abnormal Behavior.

**PSİ 207 Psychology** 2+0 3,0

Psychology and Methods of Psychology; Perception, Needs, Instincts, Motives, Frustration, Conflict; Emotion, Learning, Memory, IQ, Attention, Will, Consciousness; Developmental Stages According to Cognitive Theory; Psychoanalytic-Psychodynamic Theory and Defense Mechanisms; Effects of Groups on Behavior; Definition of Psychology: Basic concepts and Historical process; Psychology as an Effort for Self-recognition and Understanding the World; Basic Theories in Psychology: Behavioral, Cognitive, Humanistic, Existential, Structural theories; Geriatric Psychology.

**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.

**PZL 252 Sales Management** 2+0 3,0

Concept of Sales Force; Sales Force Management; Sales Management and Planning; Organization of Sales; Demand and Sales Schedule; Sales Budgets; Sales Quotas and Regulation of Sales Quotas; Setting up Sales Territories; Selection and Training of Sales Force; Demand Measurement and Forecasting; Sales Potential; Potential of Company; Methods; Sales Based on Regions; Sales Based on Products; Strategic Sales Planning; Sales Process: Preparation, Sales stages, Responding to objections, Act of sales, Tracking and control; Moral and Legal Aspects of Sales Management.

**SAĞ 102 First Aid** 2+0 2,5

Social Importance of First Aid; Aims of First Aid; Precautions To Be Considered by The One Who Will Apply First Aid; Human Body; First Aid Materials; Strangulations and Supplying Respiration; Stopping Bleedings and Supplying The Blood Circulation: External and internal bleeding signs and first aid, Recognition of blackout of consciousness and first aid, Shock causes and recognition of shock related to bleeding and first aid, Coma degrees and first aid, First aid in heartbeat stopping, Applying cardiopulmonary resuscitation (CPR) and artificial respiration together; Injury Types and First Aid; Burn and Boils; Fractures, Dislocations and Spraining; Poisonings, Freezing, Hot and Electric Shocks; Communication; Preparation of Injured Person for Carrying and Carrying Types.

**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.

**SAĞ 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.

**SAĞ 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.

**SAĞ 218 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: 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.

**SAĞ 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.

**SAĞ 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.

**SAN 155 Hall Dances 0+2 2,0**

Basic concepts. The ethics of dance, Dance Nights, Dance Costumes, National International Competitions and rules/grading, Basic Definitions, Classifications of Dances: Social Dances; Salsa, Cha Cha, Samba, Mambo, Jive, Rock'n Roll, Jazz, Merenge; Flamenko, Rumba, Passa -Doble, Argentina tango, Vals, Disco, Quickstep, Foxtrot, Bolero, European Tango: Ballroom Dances; Sportive Dances; Latin American Dances; Samba, Rumba, Jive, Passa-Doble, Cha Cha, Standart Dances; European Tango, Slow vals (English), Viyana vals, Slow foxtrot, Quickstep.

**SAN 217 Fundamental Art Education 3+0 4,0**

Basic Terms and Principles of Art Education; Visual Recording Elements; Earthly Elements; Drawing Systems; Arrangement Factors; Investigation of Objects; Survey Studies; From Natural Shapes to Artistic Forms: Object lineated synthesis, Transition to new form; Material Identification; Analysis of Artistic Works; Individual and Group Projects; Art Trips.

**SAN 219 Fundamental Art Education 2+0 3,0**

Objectives, Scope and Basic Concepts of Basic Art Education; Design and Creativity; Basic Plastic Elements: Point, Line, Color, Size, Shape, Surface; Material Identification; Plastic Values: Movement, Rhythm, Volume, Space, Balance, Texture; How to Use Values; Light-Dark Values; Composition; Form Associations: Two-dimensional form, Three-dimensional form.

**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 101 Skincare 1+3 5,0**

Definition and Importance of Skincare; Types of Skincare; Skin: Structure of Skin; Factors affecting Skin Health; Simple Skin Diseases and Characteristics; Skin Types and Characteristics; Skin Diagnosis: Equipments using for Skin Diagnosis and Diagnosis Methods; Equipments using for Skincare; Skincare Practice; Definition and Importance of Special Face Care: Special Face Cares; Skincare Types: Skincare and Applications in Saloon, Skincare and Applications at Home; Suggestions after Skincare Application; Types of Special Face Care; Sterilization, Personal Hygiene.

**SGH 103 Fundamentals of Makeup 2+2 5,0**

Definition and Importance of Makeup, Color Knowledge for Makeup, Characteristics of Face, Correction Methods for Facial Defects, Equipments using for Face Makeup, Eyebrow- Eyelash Forming, Day Makeup, Night Makeup, Bride Makeup theoretical and practically. Definition and Importance of Body Makeup; Types of Body Makeup and Using Purposes; Equipments using for Body Makeup; Techniques using for Body Makeup; Body Makeup Applications: Hand makeup, Foot makeup, Neck and Shoulder makeup, Décolleté makeup.

**SGH 104 Microbiology and Hygiene 2+0 4,0**

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 105 Hairdressing and Care I 2+3 6,0**

Definition and Importance of Hairdressing; Factors Affecting Hair Styling; Temporary Hair Styling Techniques; Selection and Use of Instruments in Blow-drying: Points to consider in blow-drying, Blow-drying techniques; Blow-drying and Styling Straight, Wavy, Curly, Straight-Mixed Hair; Selection and Use of Hood Dryers: Techniques, Points to Consider, Exercises; Hair Bun Making: Types of buns, Selection and use of devices in bun making; Bun Making for Special Occasions.

**SGH 106 Hairdressing and Care II** 2+3 6,0

Permanent Hair Styling Techniques: Definition, Importance, History; Perm Equipment Used in Practice: Points to Consider Before Permanent Waving or Straightening; Selection and Use of Chemical Products; Perm Techniques and Applications; Stages of Permanent Waving or Straightening; Equipment Used in Permanent Waving or Straightening; Selection and Properties of Cosmetic Products.

**SGH 108 Hair and Skin Diseases** 2+0 4,0

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 110 Bun-making** 0+3 5,0

Bun-making Procedures; Types of Buns; Tools Used in Bun-making; Buckles, Hairpins, Accessories, Combs; Important Tips; Buns for Special Occasions; Bridal Bun; Bun Styles in Turkey and in the World; Buns with Artificial Hair; Exercises.

**SGH 203 Makeup for the Stage and the Lens** 1+2 4,0

Definition and Characteristics Cinema, Television and Photography Makeup; Points paying Attention in Cinema, Television and Photography Makeup; Equipments and Characteristics using for Makeup for The Stage and The Lens; Makeup of Stage, Fantasy, Carnival and Special Effects.

**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 209 Hand-Foot and Nail Care** 1+3 4,0

Introduction to Nail Care; Nail Anatomy; Manicure; Pedicure; Nail Decoration; Prosthesis Nail Applications; Nail Repair Techniques and Applications; Foot Care Consulting; Foot Gymnastic; Foot Baths; Special Foot Massages; Reflexology Massage and Foot Skincare.

**SGH 210 Body Care** 2+0 4,0

Definition and Importance of Depilation; Types of Depilation: Equipment Used for Depilation; Process of Depilation; Definition and Formation of Cellulites; Equipment Used in Cellulite Treatment; Methods of Cellulite Treatment; Definition and Importance of Body Firming; Equipment Used for Body Firming; Methods of Body Firming; Special Body Care: Neck Care, Breast Care, Back Care; Body Peeling.

**SGH 211 Professional Massaging** 1+2 3,0

Terms and Concepts Related to Massage Techniques; Historical Development of Massage; Conditions to Give Massage And Not To Give Massage; Classification of Massage Techniques: Body massage, Foot massage, Leg massage, Back massage, Abdominal massage, Breast massage, Hand massage, Arm massage, Neck and face massage, Scalp massage; Massage Equipment; Effects of Massage on Human; Anatomic Structure of Face and Body; Points to Consider in Massaging.

**SGH 212 Nail Care** 1+2 5,0

Nail Structure; Nail Care: Tools used in nail care, Repair techniques; Points to Consider in Nail Care; Nail Decorations: Purpose, Significance, Methods, Considerations, Applications; Nail polishing; Techniques, Types, Application; Nail Stickers: Purpose, Importance, Methods, Considerations, Applications; Artificial Nails.

**SGH 213 Epilation** 1+2 3,0

Definition and Importance of Epilation; Basic Information About Hair; Definition and Importance of Hair; Hair Types; Hair Structure and Growth; Causes of Hair Growth; Hair Removal Techniques: Electrolysis, Tweezing, Chemical depilatories, Photo Hair Removal, Laser Hair Removal; Depilation; Side Effects of Epilation; Temporary Solutions to Removal of Unwanted Hair.

**SGH 214 Special Care Practices** 0+2 5,0

Special Body Care: Personal care; Neck Care: Tools and supplies used in neck care; Chest and Back Care: Tools and supplies used in chest and back care; Care for Cracked Skin; Spa Care Practices; Chemical Care; Body Spots; Personal Care at Home.

**SGH 215 Wig Applications** 1+1 3,0

Definition and Importance of Artificial Hair; Uses of Artificial Hair; Stages of Artificial Hair Construction; Wig-making with An Awl: Care, Washing, Drying, Fitting, Styling; Types of Artificial Hair; Clip-in and Clip-on, Bonding, Fusion, Infusion, Micro Loops, Tracking; Artificial Hair Used by Men: Wig, Toupee, Beard-moustache, Sideburns; Hairpiece and Snap-Fastener; Reasons for Wig Using; Hair Extensions; Points to Consider in Hair Extensions; Keratin-based Hair Extension: Period of use, Care and preservation, Styling.

**SGH 217 Hair Styling I** 1+3 5,0

Blow-drying: Definition, Importance, Techniques, and Practices; Bun-making: Definition, Importance, Techniques, and Practices; Perm: Definition, Importance, Techniques, and Practices; Waving or Straightening: Definition, Importance, Techniques, and Practices; Hair Coloring: Definition, Importance, Techniques; Color: Definition, Classification, Tonality; Hair Highlighting and Lowlighting..

**SGH 218 Hair Styling II** 1+3 6,0

Hair Cut: Definition, Importance, Techniques, and Practices; Styling Children's Hair; Styling Male Hair: Definition, Importance, Techniques, and Practices; Male Hair Perms:

Definition, Importance, Techniques, and Practices; Male Hair Waving or Straightening: Definition, Importance, Techniques, and Practices; Male Hair Dyeing: Definition, Importance, Techniques, and Practices; Color: Definition, Classification, Tonality; Male Hair Highlighting and Lowlighting.

**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 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.

**TİY 221 Creative Drama 2+0 3,0**

Definition of Drama; Differences and Similarities Between Types of Drama; History of Educational Drama; Importance and Use of Play and Drama in Child Development and Education; Drama Techniques; Types of Educational Drama; Integration of Educational Drama Activities in Daily and Weekly Programs of Pre-School Education: Use of drama in learning by practicing, Gaining self-confidence, Adaptation, Using five senses, Developing observation skills, Game setting; Uncovering Individual and Group Creativity.

**TİY 308 Republic Era Turkish Theatre 2+0 3,0**

Republic Era Turkish Theatre: Political, Social, Cultural Art Life; Theatre Concepts; Western Theatre; Theatre Perception; Effects of Western Theatre on Turkish Theatre; Dramatic Types; Acting Methods, Directing, Playwriting, Dramatic Styles; Theatre Buildings; Directing Techniques; Analyzing Developments of Theatre; Theatre Education; State Theatres; Private Theatre Companies.

**TLT 101 Medical Biology and Genetics 3+0 6,0**

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 104 Clinical Microbiology Applications 1+2 5,0**

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 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 4,0**

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 219 Biotechnology and Biosafety 2+0 3,0**

Definition of Biotechnology; Importance of Biotechnology; Biotechnology in Turkey and in the World; Biotechnology Policies in the World; Use of Biotechnology in the Production of Vegetables, Fruits, and Plants with Oil Seeds and Biologically Active Substance; Biotechnological Methods Used in Food Industry; Use of Biotechnological

Methods in Industrial Waste And Waste Water Treatment: Future Applications of Biotechnology.

**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 223 Laboratory Knowledge 2+0 3,0**

Safety at Work and Regulation of Hazardous Chemicals; Classification of Chemicals; Explosive, Oxidant, Flammable, Toxic, Irritant, Corrosive, Carcinogen, Mutagen, Radioactive compounds; Rules to Obey While Working with Chemical Compounds; Acids and Bases, Alkali Metals, Heavy Metals, Formaldehyde, Sulphuric Compounds; Basic Processes: Working with glass materials, Working under vacuum; Heating and Cooling Processes; Fire and Fire Prevention Methods; Storage and Removal of Chemical Waste; Labeling and Storage of Waste Containers and Chemical Compounds; Chemicals That Should not Come into Contact with Each Other.

**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 104 Fundamentals of Gerontology 3+0 5,0**

Definition of Senescence and History of Gerontology; Changes appearing in Senescence and Types of Senescence; Factors affecting Senescence and Preventing of Premature Aging; 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; Healthy and Active Aging; Conditions of Aged People in Our Country.

**YAB 107 Principles and Practices in Elderly Care I 3+1 5,0**

Aging and Old Age: Hypertension and Heart Failure in Aged People; Cardiovascular Diseases in the Elderly; Dementia, Parkinson's Disease; Urinary Incontinence and Fecal Incontinence in the Elderly; Principles of Nutrition in the Elderly; Changes in Physical Activity in the Elderly; Nursing Care for Aged People; Pressure Ulcers and Care; Tracking of Drug Use in the Elderly; Cardiopulmonary Resuscitation.

**YAB 108 Principles and Practices in Elderly Care II 3+1 5,0**

Oral Drug Administration: Types, Methods; Parenteral Drug Applications: Types, Methods; Warm and Cold Applications; Pain and Sleep; Respiratory System and Applications; Gastrointestinal System and Applications;

Urinary System and Applications; Wound Care and Applications; Care of Bedridden Patients; Care of the Elderly in Terminal Stage; Elderly Care Homes, Relevant Hospital Units.

**YAB 110 Pharmacology 2+0 5,0**

Introduction to Pharmacology and Definitions; Research Fields of Pharmacology; Pharmaceutical Forms and Routes of Administration; Pharmacokinetic Properties; Side Effects and Toxic Effects of Drugs; Poisonings and Treatment; Autonomous Nervous System Drugs; Cardiovascular System Drugs; Drugs Used in Nervous System Diseases and Psychiatric Diseases; Drugs Used in Respiratory System Diseases; Drugs Used in Digestion System Diseases; Antibiotics; Drugs Used in Endocrine System Diseases; Drugs Used in Cancer Treatment; Antiviral, Antifungal, Antiprotozoal, Anthelmintic Drugs, Disinfectants; Prescription Information.

**YAB 112 Infectious Diseases 3+0 5,0**

Infectious Agents; Pathogenesis; Transmission; Symptoms; Virulence; Epidemiology; Infectious Diseases Diagnosis; Testing; Prevention; Control; Immunization; Immune System and Host Defense; Hospital (Nosocomial) Infections; Diseases Transmitted via Surgery and Transplantation; Severe Acute Respiratory Syndrome; Diseases Transmitted by Air; Direct Contact Transmission; Sexually Transmitted Diseases; Animal Transmitted Diseases; Insect Transmitted Diseases; Soil Transmitted Diseases; Water Transmitted Diseases; Diseases Transmitted by Food; Microorganisms as Biological Weapons.

**YAB 114 Disinfectants and Their Uses 2+0 4,0**

Chemicals Used for General Disinfection: Living spaces, City water, Canalization, Pools; Chemicals Used for Special Disinfection: External antiseptics; External Antiseptics by Chemical Structures: Phenols, Aminoacridines, Various nitrogenous compounds, 8-Hydroxyquinolines, Organic heavy metal compounds, Oxidant compounds, Chemical sterilization agents, Alcohol and aldehydes, Ethylene oxide, -Propiolactone; Internal Antiseptics; Urinary and Gastrointestinal Tract; Organic Arsenic Derivatives; Organic Antimony Derivatives; Organic Bismuth Derivatives; Nitrofurans Derivatives.

**YAB 207 Principles of Nutrition 2+0 3,0**

Introduction to Nutrition; Carbohydrates, Proteins, Fats, Vitamins, Water and Minerals; Characteristics of Probiotics; Principles of Adequate and Balanced Diet; Nutritional Characteristics of the Elderly; Energy Requirement; Ideal Height and Weight; Food Groups and Food Pyramid; Consumption of High-fiber Food by the Elderly; Malnutrition and Anorexia of Aging; Obesity and Diseases Caused by Obesity; Nutrition of the Elderly with Chronic Diseases.

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

Principles of Elderly Care ; Comprehensive Geriatric Assessment and Applications; Care for Bedridden Aged People; Care in Fecal State and Urinary Incontinence; Basic Palliative Care; Elderly Care in Terminal Stage; Family Involvement in Elderly Care; Basic Principles of Elderly Care in the World; Social Approaches to Elderly Care.

**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 213 Knowledge of Diseases I 2+0 3,5**

Heart And Vascular Diseases Related To Old Age; Old Age Diseases Of Respiratory System; Endocrine System Diseases Due To Old Age; Urogenital System Diseases Due To Old Age; Elderly Hematological Diseases Of Gastrointestinal Tract Diseases In Old Age; Nephrological Diseases In The Elderly.

**YAB 214 Knowledge of Disease II 2+0 4,0**

Oncological Diseases in The Elderly; Neurological Diseases in The Elderly; Memory and Cognitive Functions, and Loss of Cognitive Functions in Aging: Mild Cognitive Impairment, Dementia, Alzheimer's disease; Muscular and Skeletal System Diseases Due to Aging; Common Rheumatic Diseases in The Elderly; Skin Diseases in The Elderly.

**YAB 216 Social Rehabilitation 2+0 3,0**

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 218 Physical Rehabilitation 2+2 4,0**

Aging and Effects of Aging on Systems; Effects of Exercises on Systems; Use of Walking Aids and Other Assistive Devices; Effects of Regular Physical Activity; Physical Activity and Musculoskeletal Diseases; Principles and Techniques of Exercise Programs for the Elderly: Body mechanics, Upper and lower extremity exercises, Respiratory system exercises, Arthritis and gymnastics for the prevention of arthritis.

**YAB 220 Seminar****2+1 4,0**

Basic Principles of Aged Care; Principles of Eldercare in the World; Eldercare Principles in Different Institutions in Turkey; Elderly Care Homes and Applications: Bedridden Elderly Care; Mild Cognitive Impairment; Dementia; Alzheimer's Disease; Provision of Social Information on Eldercare: Brochure preparation, Tagline development, Taking part in related events.

**YAB 222 Nutraceuticals****2+0 4,0**

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.